Action Research for Sustainability in the UK National Health Service (NHS): linking theory and practice in organizational strategy for Sustainable Development.

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The candidate confirms that the work submitted is her own and that appropriate credit has been given where reference has been made to the work of others.

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Abstract

This thesis is an account of research at two levels of inquiry. At the context-level, it is concerned with advancing theoretical understanding of the challenges to progressing Sustainable Development (SD) in NHS organizations. Previously these had been described as comprising i) lack of organizational support afforded to SD, ii) difficulties in prioritising and evaluating the impacts of SD initiatives, and iii) a dominance of working arrangements inappropriate for dealing with the cross-departmental and inter-organizational nature of SD. At the meta-level, it is concerned with advancing theoretical understanding of an Action Research (AR) approach to addressing such challenges in their context. It seeks to contribute to emerging frameworks which define a co-operative relationship between practitioners as active participants in their own solutions to organizational change for SD, and outside academics as facilitators of appropriate learning processes to support this. I engaged in two phases of research to address both these levels of inquiry. In Phase 1, I developed a theoretical understanding of the challenges of NHS SD through fifteen semi-structured interviews with practitioners and policy makers leading initiatives for SD in the NHS. In Phase 2, I used this contextual theory to inform an AR approach to progressing SD in one NHS organization. In this process, I facilitated cycles of action and reflection with a group of five senior managers over a twelve month period, in order to develop their organization's SD strategy. Both Phases revealed the constraints practitioners face in developing SD beyond a narrow resource efficiency agenda. AR holds potential for developing broader interpretations through the integration of SD theory into organizational learning process. However, such an endeavour is beyond the scope of a single AR project and must be viewed as an ongoing relationship between academics and practitioners, as well as other actors of influence from across the health system.

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List of Acronyms

Frequently abbreviated terms for research processes and concepts

AR – Action Research

ERM – Environmental Resource Management (in the NHS)

PRP – Participatory Research Paradigm

SD – Sustainable Development

SD as PH – Sustainable Development as Public Health (in the NHS)

Frequently abbreviated organization names (and types)

DEFRA – Department of Farming and Rural Affairs

DH – Department of Health

NGO – Non-Governmental Organization

NHS – National Health Service

SDC – Sustainable Development Commission

SDU – Sustainable Development Unit

Preamble – the search for personal niche

With so much evidence to suggest that the lifestyles of industrialised societies are increasingly destructive in their impact on the Earth and many of its people, I am amazed and disheartened almost daily with the extent to which we (including myself) are able to deny the problems, and continue as if everything is rosy. It is this urgency of the issues, combined with an apparent lack of general response which I believe has led me to embark on this thesis as a means of expression, and hopefully guidance for my own actions. That it is possible to find meaning in life through a continuous quest to align personal actions with the needs of a greater whole, is being increasingly explored by a minority of scholars working in the field of Sustainable Development. In a field of study sometimes referred to as *Sustainability Literacy*, Phillips (2009) describes 'happiness as authenticity' as a process whereby a person seeks to align their observable behaviour with their 'internal values, innate talents and desires' (p. 175), as a way of achieving meaning. He suggests that at the deepest level, we do desire a more just, ecologically sound way of living, and that such values, desires and the relevant talents for contributing to them, can be surfaced intentionally. Once people choose to try to re-align their behaviour in this way, this in turn 'reinforces and develops the values and talents that underpin it' (p. 175). This has potential benefits in instrumental terms, by leading to behaviours which could be recognised as more sustainable than otherwise. However, it also has potential benefits for the person involved who becomes better able to satisfy their human search for meaning, through an internal process over which they have some control. This is different to seeking meaning through consumption of goods, services and lifestyles which are subject to changing external trends, and with which it is impossible to ever keep up.

Maiteney (2009) calls this a quest for meaning through a contextualising mode, where 'persons and groups (experience) themselves as part of the bigger ecological whole' (p. 180). He explains how this not only provides an individual with a sense of their own place within the broader scheme of things, without having to gain this through possession and consumption of material goods, but can also lead to a sense of service towards it, where an individual develops their own way of contributing to the broader whole. I find this concept helpful in understanding what I have increasingly, yet somewhat unwittingly, found myself trying to do through various forms of employment. As I am someone who naturally perceives things in broad and systemic terms, I have tended towards roles which seek to communicate this perception and gain collective acceptance of it, in contexts

where less systemic alternatives dominate: specifically I have worked in environmental education targeting the general public, and in environmental management for two large public bureaucracies. By recognising that this is a significant way in which I seek meaning in life, I can understand my intentions in this thesis as being an exploration into how I can develop this role further, and whether the academic approaches of Action Research for Sustainability, offer a means of supporting this. Once I can understand this intention, I can engage in critical reflection on the validity, usefulness and authenticity of this approach, which is necessary to develop it, and therefore myself, further.

1 Introduction and Overview

1.1 An introduction to thesis aims

This thesis is positioned in the broad field of concern referred to as 'Sustainable Development'. For introductory purposes, I cite the most widely used definition of this term as 'development that meets the needs of the present without compromising the ability of future generations to meet theirs' (WCED 1987 p. 43) which was presented in what is now commonly referred to as 'The Brundtland Report'. Produced by the United Nations Commission on Environment and Development, this report is now regarded as one of the earliest, and certainly the most well-known examples of some international consensus on the need to consider the principles of environmental limits, social equity and human wellbeing, within development efforts. Whilst interpretations of what these principles mean vary wildly in practice, the term 'Sustainable Development', is still used in a wide variety of contexts, and at different scales, to refer to the ambition to achieve their integration in some format, into human decision-making and behaviours, in order to preserve the natural and social systems on which we all depend.

However, whilst the term is still used, real progress towards the Brundtland objectives remains elusive. With regards to environmental limits, there is now substantial evidence that industrial societies are using more resources, and creating more pollution and waste, than the Earth's systems can replenish or accommodate, and that this trend is only increasing. This is evidenced in many forms, notably a continued rise in the rate of decline of the World's species so that over a third are now regarded as threatened (Vié et al 2008), and a continued rise in greenhouse gas emissions despite overwhelming evidence that such trends are likely to lead to catastrophic scenarios of desertification, sea-level rises, and hazardous weather events (IPCC 2007). The chances of addressing the other Brundtland principles of human equity and well-being are reduced in the light of these environmental pressures, as indicated in the latest Progress Report of the Millennium Development Goals. This described how climate change and severe weather events affect the most vulnerable:

> The most severe impact of climate change is being felt by vulnerable populations who have contributed least to the problem. The risk of death or disability and economic loss due to natural disasters is increasing globally and is concentrated in poorer countries. (UN 2010 p. 4).

In short, whilst there has been international activity in response to the Brundtland Report, the international community as a whole, is a long way from achieving a model of

Sustainable Development. Whilst such grand-scale models remain uncertain, attempts to integrate the principles of Sustainable Development into specific contexts continue across many sectors of society in industrialized nations: organizations from the public and private sectors have policies and strategies to help them contribute to these concerns, Non-Governmental Organizations (NGOs) and community groups exist primarily to progress these principles, and even at the level of households, some individuals make efforts to align their practices with these.

This thesis aims to contribute to academic understandings of progressing Sustainable Development, abbreviated from here-on as SD, at two levels. The first is at the level of one particular organizational context**:** that of the UK National Health Service (NHS). As the NHS is the UK's largest employer, funded principally from taxation, there are demands for the NHS to play a key role within the UK's national SD strategy (DEFRA 2005). I aim to further understanding of what these demands mean and could mean, for an NHS organization attempting to develop organizational practices along these lines. At the second level, I aim to contribute to an understanding of research process itself, specifically how such process can be enacted in order to contribute to positive change with respect to the principles of SD. Coghlan and Brannick (2005) have described research which takes place at two such levels as comprising not only the inquiry about a topic, which in this thesis I call a contextual inquiry, but also an inquiry about the process of conducting the contextual inquiry, and I use their term meta-inquiry (p. 25) to refer to this level. I summarise this dual level, and the terminology used to discuss it here-on in my own diagram presented in Figure 1.1.

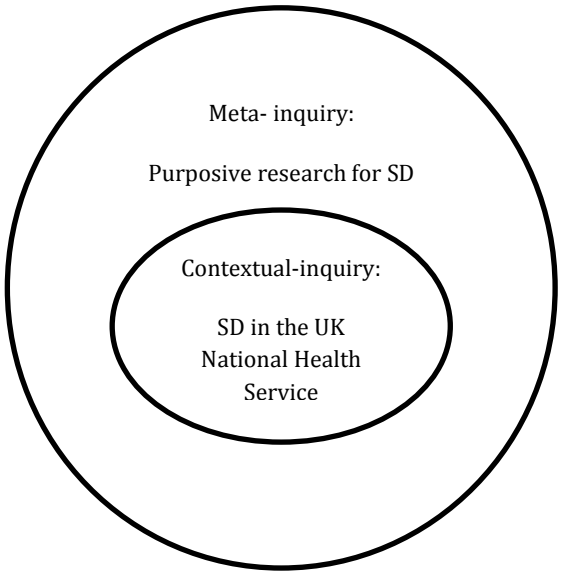


Figure 1.1 The two levels of inquiry of this thesis

In this Chapter, I explain why I take this dual-level approach to research for SD, as well as the reasons for choosing the NHS as a context. I introduce the key contributions which I seek to present in this thesis with respect to each level, and summarise the thesis structure in which these contributions are developed and presented, including a brief overview of the role of each Chapter within this.

1.2 Including a meta-level inquiry in research for Sustainable Development

My decision to take a dual-level approach to contributing to knowledge for SD is the result of two converging areas of academic work. One area is the increasing interest being afforded to the need to shift cultural assumptions and social patterns of knowledge and behaviour, as a means to develop responses to SD, and what such a shift could mean for particular contexts. The other is the increasing interest in a particular approach to research process termed the 'Participatory Research Paradigm' as a means of assisting such a shift. The first area responds to my sense of disappointment at the progress of dominant approaches to SD to date. There has long been a distinction made about different approaches to SD. One of the most influential presentations of such distinctions has been made by O'Riordan (e.g. 1985). He outlined the characteristics of two different ideological strands of thought concerning man's relationship to the rest of the social and non-human world, which he termed 'technocentric' and 'ecocentric' (p.1432). He did not presume that anyone would believe purely in either of these strands but that one would be more or less dominant. He described how 'technocentrism' (a man-centred view) is characterised by its 'optimism' in the belief that it is possible, through ingenuity and economic forces, for the needs of the majority of people to be met. It is also characterised by its emphasis on what he describes as 'accommodation' which refers to adjustments and regulation which need to be made to existing development processes, to reduce negative environmental impact. The term 'accommodation' draws attention to the fact that this happens within existing power distributions, and within existing economic structures. At the other end of the spectrum 'ecocentrism' (based on the centrality of man-environment relations) does not hold to the optimistic view that the needs of the majority can be met through ingenuity and management of any impacts. The long-term health of the environment, and therefore of humans, depends on the alignment of our behaviours with the wider ecosystem of which we are a part. Achieving this, requires fundamental shifts in power distribution, and therefore the economic system which currently supports these.

A similar distinction between approaches to SD has been made by Hopwood el al (2005) who builds on O'Riordan to define existing approaches to SD depending on the extent to which they support or challenge dominant interests, using the terms 'status quo' or 'transformatory' respectively (p.41). He claims that it is the former of these approaches which has dominated mainstream policy and strategy for SD, to date, with the UK's own SD Strategy (DEFRA 2005) being described as an example of this. Also related to these categorizations is the distinction between 'weak sustainability' and 'strong sustainability'. described by Neumayer (1999). This is specifically concerned with finding the appropriate economic principles to support SD. In 'weak sustainability' it is presumed possible for manufactured capital to be of equal value to natural capital, therefore there is no need to preserve natural capital for its own sake. In 'strong sustainability' natural capital must be maintained and enhanced because it cannot be substituted. This categorization, whilst narrower in focus, reflects the distinctions introduced above with 'weak sustainability' implying the 'optimism' and 'accommodation' of technocentricism, and strong sustainability implying the call for a radical re-think of man's relationship to the environment.

As the mapping exercise of Hopwood et al (2005) aims to show, it is the more conservative, less critical, of these categories (technocentrism, status quo, weak sustainability) which have been more dominant to date. However, whilst more critical approaches (ecocentrism, transformatory, strong sustainability) may still be marginalised, there does seem to be some increasing interest in the benefits of engaging with the roots of our cultural behaviour, as a necessary part of the SD effort. For example, in the Worldwatch Institute's annual *State of the World Report* (Assadourian 2010), which is an influential guide for policy makers at all scales, this argument is central. This states that sustainability requires 'nothing less than a wholesale transformation of dominant cultural patterns' (p. 3). It calls for an examination of the:

> core assumptions of modern life from how businesses are run and what is taught in classrooms to how weddings are celebrated and the way cities are organized (p. xvi).

It argues that the consumerist principles on which these are founded (i.e. seeking meaning in what is consumed) be realigned towards requirements of sustainability (i.e. seeking meaning in ecological health). The need to engage with cultural processes as a pre-requisite for progressing SD is also increasingly being explored in academia. O'Riordan with Voissey (1998) who, in the context of a study of progress towards SD in the European Union wrote:

> The transition (to sustainability) is as much about new ways of knowing, of being differently human in a threatened but cooperating world, as it is about management and innovation of procedures and products (p. 3).

I am heartened by these proposals, as they seem to suggest that the cultural root, referring variously to such descriptors as values, assumptions and key ideas, of our collective patterns of behaviour, if understood in enough depth, can be changed in a purposive manner towards alternatives more conducive to sustainable practice. It is through this suggestion of assisting a purposive shift that the Participative Research Paradigm converges in interest. This research approach has been developed in the main through the work of Reason and Bradbury (e.g. 2009) but its influence is much wider than just their own work. It is an attempt to articulate a theory of academic research process as a body of tools, methods and approaches which enable researchers to actively contribute to changing cultural assumptions: a departure from what Heron and Reason (1997) describe as the post-Enlightenment dominance of objectivity, control, separation and distinct entities, and a movement toward more relational versions focused on connectivity, inter-subjectivity and crucially, participation:

> the image (of the Participatory Research Paradigm) shows us how to move away from the mechanical abstraction of the Cartesian Worldview, and from relativism which appears first as its counterpoint, to an experience of participatory reality (p. 274).

Whilst it was not developed specifically from within the academic discipline of SD, but much more widely within the social sciences, the potential relevance for change towards SD is receiving increasing amounts of attention. Indeed the purposive element of the Participatory Research Paradigm as an inquiry into 'a world worthy of human aspiration' (Reason and Bradbury 2001 p.2) has been central to all accounts of this research approach. The pursuit of ecological sustainability through this approach to research has also being stated explicitly, with reference to the desire to contribute to 'the flourishing of human communities and the ecologies of which they are part' (Reason et al 2009 p.9).

It is to a generalised knowledge of how this research approach can achieve such ambitions, that I wish to contribute through the meta-level inquiry; further developing the academic understanding as to what this approach can offer to SD, whilst at the same time, informing my own research practice. The meta-level is therefore included for this instrumental reason but is also a methodological requirement within this research perspective. As is described in full in Chapter 2, seen from this participative philosophy, the researcher is viewed as an inextricable part of the knowledge-making process. They cannot obtain objective knowledge about a context, but must engage as co-creators of knowledge for action within the context. Because of this, their own cultural assumptions

require just as much critical scrutiny as other subjects of research. In short, from this perspective, academics do not sit outside the challenges of SD from a neutral position. Their practices are likely to be just as much a part of the patterns of destructive behaviours which they seek to address through their research. The Participatory Research Paradigm is a positive response to this acknowledgement of complicity. It seeks to provide guidance to enable the academic to utilise their position of relative power within society, to help develop a specific role within a required cultural transition to SD. As I identify in Chapter 2, this proposal, whilst seemingly full of potential, is also relatively immature in development.

The account I provide of the meta-level inquiry of this thesis is my contribution to the academic community of Action Researchers working within this research paradigm towards the goals of SD, in order to further understand what such an endeavour could comprise, and what it may have the potential to achieve. The key contribution I make with respect at the meta-level is a theoretical framework to guide this research endeavour. I build on conceptualisations of Action Research for the goals of SD already offered to date, to present my own proposal for a framework of Action Research for Sustainable Development which is applicable to organizations. It adds an understanding of organizational change process to existing conceptualisations, and links more explicitly to theories of SD to inform a vision, as well as an understanding of challenges to progress. I propose that these additional elements help to define a co-operative relationship between Action Researchers and practitioners in understanding how SD in organizations can be progressed through real life attempts to make changes.

1.3 Choice of research context: Sustainable Development in the NHS

As I have just described, this thesis is primarily concerned with the processes of progressing SD, specifically the potential for developing approaches which seek to engage with, develop, and even revise, the cultural assumptions which currently guide predominantly destructive patterns of social behaviour. It is concerned with how the academic process of research can engage with a context, with the explicit ambition of achieving change in its underlying cultural assumptions and behavioural patterns. I believe this research aim could have been tackled through engagement with many possible contexts, but my own personal experience led me to explore these ideas through the lens of the NHS.

Between 2000 and 2004, I was employed on behalf of a small number of neighbouring NHS organizations, to contribute to their organizational responses to an increasing

number of nationally recognized concerns about the impacts of the NHS as a whole, on environment and society. As the largest employer in the UK, statistics regarding the significant scale of its impacts were coming to light. With respect to the environment, a '*Mass Balance analysis of the NHS in England and Wales*' was published which included annual estimates of waste generation (384698 tonnes), energy consumption (12650 Gwh) and staff/patient/visitor mileage (25billion) for 2001 (Jenkins 2004). With respect to society, the focus was the less-than-perfect supply chain. The Kings Fund drew attention to an annual spend on goods and services of £11b, with little proactive knowledge of the credentials of many of its suppliers (Coote 2002), the impacts of these supply chains on the environment, nor on the communities they link to.

Even before I sought to analyse this context academically, my perspective was that the recommended approach to dealing with these impacts can broadly be likened to the technologically-focused approaches outlined in the categorizations of SD listed above. It sought to employ a range of management practices and technological advances to manage the most obvious of the impacts attributed to the NHS: to control emissions and resource use by implementing more efficient practice, to send more waste for recycling, and to identify and manage the most controversial parts of the supply chain. However, an alternative, more radical approach was also being proposed which I was far more interested in. This was termed 'virtuous circle' resourcing by the Kings Fund (Coote 2002 p. 2). It was essentially a critique from outside the organization, demanding that with so much public money in the hands of the NHS, it had a moral obligation to ensure that it not only minimised its negative impacts, but that it used its scale of influence to positively contribute to environmental, social and economic conditions of the communities it serves. This form of resource allocation would be a virtuous circle because the health of people in such communities would benefit, thereby controlling demand for services in the long-term. The notion that organizations can positively contribute to their communities through the resource decisions they make, is not only applied to the NHS. However, it is particularly pertinent in this organization whose purpose, and the reason why many people work there, is to do good for the people they serve.

This proposal for a 'virtuous circle' began to ask questions which did address root causes. It questioned the purpose of the NHS, and whether or not it was right that its primary focus was on disease treatment, regardless of the longer term and broader impacts that delivering this treatment may have. Whilst this proposal had, and still does have, many fervent supporters, it was extremely difficult to progress in practice. At the level of individual colleagues, there would be much recognition of its value, but there seemed to be

persistent barriers from the organization as a whole. Management of significant impact appeared to be the only approach acceptable, and even this was difficult. It was not easy to decide which impacts were most significant, to communicate these decisions to a large workforce and then to expect them to change their behaviours accordingly. Each decision made therefore took vast amounts of time to implement. I grew tired of what seemed to be an extremely inefficient way of controlling our impacts, but a way that seemed to mirror broader societal approaches to SD. It was not that I thought the management of our impacts was wrong; this was clearly necessary. It was more that this became an impossible task. From the perspective of an employee working within a small team to manage SD, it felt as if the NHS carried on with its business as usual without any regard for SD, and a small team was left to clean up after it. This was a highly unsatisfactory task, and I left this post to observe from the academic world, hoping to reach a better understanding of the reasons for seemingly intractable patterns of non-sustainable behaviour, along with a more effective way for me to contribute to addressing these.

As I developed my academic understanding of this context, first through contributing to academic papers on our team's experience of developing waste management in the NHS in Cornwall (Tudor et al 2004, 2008), and then through reviewing wider literature, it was clear that a number of recurring challenges with progressing NHS SD had been identified and that these reflected my own experiences as a practitioner. The studies of Griffiths (2006), and Jochelson et al (2004) describe the lack of organizational support, Jochelson et al (*ibid*) along with Douglas (2004) describe problems of measurement, and Tudor et al (2004, 2008) referred to the need to address a lack of supportive working relationships. I identified a small number of attempts to understand and propose solutions to these challenges through theoretical frameworks which drew on some form of theory of organizations and their approaches to SD. E.g. Dooris (2007) describes the relevance of the concept of corporate citizenship, and more recently, notions of complexity approaches to management have been proposed as having potential for understanding and guiding the change process to NHS SD (Mittleton-Kelly 2011). Understanding and developing this emerging theory therefore became the contextual aim of this study. This should allow for further clarification of the distinction between potential approaches to SD which I had identified from my own experience, and how the challenges which had been documented were likely to be experienced differently depending on what interpretation was taken. In short, I was keen to draw attention to the notion that some approaches to NHS SD were likely to be harder than others to progress, and that these distinctions should not be ignored, otherwise I felt there to be a risk that the more challenging of these, which I

believed to be the 'virtuous circle' proposal, would just be passively left out, whilst the easier interpretations were addressed. In short, the context offered me ample scope to explore notions of approaches to SD. By linking this to the participative research process described above, it also offered me scope to explore a potential collaborative role for academic researchers working with practitioners to progress those interpretations of NHS SD which are more challenging than the technologically-focused approaches which seem to dominate.

The key contribution I make with respect to the context level is what I term a 'conversational map' with which it is possible to define interpretations of NHS SD to identify the extent to which they challenge organizational values and assumptions. The framework helps also to explain how these differences in definitions are likely to lead to them experiencing different opportunities and challenges in progressing them. I explain how this format for definition and explanation of different interpretations of SD in the NHS, can be used within the co-operative framework of Action Research for Sustainable Development already introduced with respect to the meta-level, which links the academic research process with organizational strategy for SD.

1.4 Thesis overview and structure

In the remainder of this Chapter, I provide an overview of the whole thesis. Figure 1.2 provides a snapshot, and the role of each Chapter within this is explained in more detail in the accompanying text.

Chapter 2

In Chapter 2 the philosophical groundings of the thesis are introduced, as these have influence on the overall approach and design as well as the specific methods used. The terms 'worldview' and 'social paradigm' are introduced to describe a grounding concept for this thesis which is the idea that behaviour is of social and collective origin, and I explain why I use the term worldview throughout. I provide a summary of how, in SD, this concept is used to theoretically discuss the need to engage with the process of how worldviews develop if the cultural root of current patterns of behaviour is to be understood and addressed. I outline evidence put forward for the emergence of a worldview across Western industrialised society, more conducive to SD than that which currently dominates, and which has been expressed in various terms. These include the 'participative worldview' (Heron and Reason 1997 p.277) or the 'postmodern ecological worldview' (Sterling 2003 p.117) which extend and critique the currently dominant notions of how we see the World and our place within it which, as these critiques

invariably propose, originate from the Enlightenment. In this critique, the pervasive notions of objectivity and separation, prediction and control are challenged by emerging notions of relationship and connectivity, unpredictability and adaptive capacity, respectively. I highlight commentary on the emergence of such a critique across the natural and social sciences and how its language is infiltrating many areas of the discourse of SD.

I go on to describe the Participatory Research Paradigm as an expression of this worldview within the social science research community. Researchers in the social sciences have a particular role in society which is the progression of knowledge about the World and our activities within it, and to achieve this they must subscribe to particular philosophical groundings. These are their perspectives on the nature of the World, how knowledge of the World can be created, and the methodological frameworks which can be used by researchers to achieve knowledge creation. These philosophical groundings are collectively termed a 'research paradigm'. I describe how the Participatory Research Paradigm is explicit in its grounding within the participative worldview and, moreover, explicit in its desire to advance this worldview in real-life contexts, through its methodological frameworks of Action Research. I describe the emergence of theory on the role of Action Research in research for SD, reviewing how this has been conceptualised in very broad terms as 'relational' activity designed to assist the critique of assumptions operating in a context, and develop alternatives. A proposed role for Action Research in developing the conditions which support such practice is beginning to be defined as the promotion of conversations for SD which focus on the gaps between dominant assumptions, and those required for SD. I propose that further attention needs to be paid to the process by which assumptions are critiqued and developed to build theory for SD, specifically in the context of organizations. I introduce a model of paradigm change for SD (Sterling 2003) and its relevance to guiding the content of these conversations.

I explain how the participatory worldview is also evident within organizational studies, specifically emerging theories of how organizations are perceived in relation to that which exists outside their formal structures, and how behaviour arises within them. Here, the collective and social origin of behaviours has been acknowledged for some time, notably with the work of Argyris and Schön (e.g. 1978) on defensive patterns. However, a participative worldview is evident in emerging ideas of the processes by which these patterns can be revised. Literature on organizational knowledge is beginning to include reference not so much to organizational defences as discrete entities which can be studied and revised out of context, but as created and developed, as real actions take place. Their

revision therefore requires situated and contextualised learning experiences, of which Action Research frameworks, some more than others, are potentially well placed to support. I describe how the occurrence of these ideas leads to the theoretical proposition for convergence of researcher-participant learning experiences and how such an understanding could bring theoretical groundings to researchers wishing to engage with organizational SD, and also those theorists and practitioners working on SD in organizations, where such a need for participatory, learning strategies are beginning to be discussed. Within this theoretical proposition, the role of the Action Researcher is one of integration and support, and the role of the practitioner is one of active participation. I summarise the meta-level research aims which arise from this review of theory in the following table, which is also included in Chapter 2.

Develop the theory & practice of Action Research for Organizational Sustainability as combined researcher-participant strategy specifically by: • Addressing the need to build theory for SD as part of Action Research process • Integrating theoretical understanding of learning process in organizations • Defining an 'integrative' role for researcher, and a 'participative' role for practitioners

Figure 1.2 Meta-level research aims

Chapter 3

In Chapter 3 I describe the context through which the meta-inquiry is addressed. A focus on the meta-inquiry does not mean context is any less important than in research which does not take this approach: indeed the Participatory Research Paradigm proposes that contributing to change in real-life contexts is in fact the principle aim of such research. The meta-inquiry however, offers new ways of perceiving a context and the process of change within it. The purpose of this chapter therefore is to provide an overview of this context and how it has been studied to date in order to suggest ways in which research grounded in the Participatory Research Paradigm could potentially contribute to how it is understood in a format which can progress change within it. If the overall perspective is research which considers and develops cultural roots in an attempt to progress these towards SD, I need to provide an understanding of dominant patterns currently existing in the NHS from the position of a researcher with a background in SD, not in health studies. I therefore make no claims to understand the NHS fully; indeed many argue that the complexity of it is such that this is impossible, but if SD researchers are to tackle cultural

change as a means to progress SD, then they need to engage with the key ideas dominating in their context of interest. To do this, I draw on accounts of historical change in policy and practice in NHS since its establishment to identify recurrent tensions and debates with respect to organizational purpose, strategy and practice, in order to point to the dominance of particular interests and the marginalisation of others. This then becomes the baseline from which it is possible to start to understand the interpretations, successes and challenges of SD policy and practice within this context, at least partially, as a power dynamic between those proposing changes for SD, and those with interests in maintaining the status quo. The different challenges experienced within attempts to progress SD are therefore related to the extent to which they challenge or support dominant organizational assumptions. To begin this process, I provide an overview of SD policy in the NHS, placing this within the broader public policy for SD in the UK. Here I identify (with caveats about generalisations), two broad priority areas for the NHS: one focusing on environmental resource management therefore more akin to technocentric approaches to SD, and one more critical of root causes which is a call for SD to be seen as a public health issue.

I review the relatively sparse literature on NHS SD and conclude that this is mainly descriptive about the challenges faced in progressing SD. I summarise these as a general lack of organizational support, a lack of understanding as to what should be included and how SD can be measured beyond that for which there is a clear financial case, along with a challenge to ways people work together; SD calls for cross departmental working, and the development of relationships with external parties, for which current organizational structures are not fully supportive. Along with these descriptions of the challenges, I also review three categories of attempts to theoretically frame such challenges with a view to understanding how to progress them. First, I identify systems-based concepts, originating from concepts of public health, which see SD and Public Health, as discernable qualities within a community. Within some of these concepts, a specific role for health organizations such as the NHS in contributing to these qualities is described, supported by the premise that it has an interest in health promotion, and terms such as 'corporate citizenship' are used to refer to this role. Second, I identify early attempts to define the strategic implications of such corporate citizenship from an NHS management perspective. Informed by the philosophical groundings outlined in Chapter 2, I propose that existing theory on NHS SD can be advanced by linking explicitly to theories of organizational change as learning and that this needs to be accompanied by more explicit acknowledgement of a vision of NHS SD and why this may be difficult to achieve within

current organizational constraints. Organizational learning is then presented as a means by which such challenges to achieving a vision can be addressed. Action Research is presented as organizational strategy for co-creating solutions with academics. I explain the detail of this proposal in Chapter 4. I summarise the context-level research aims which arise from this review of theory in the following figure.

Develop a theoretical understanding of NHS SD through a framework which can guide:

- definition of different interpretations of NHS SD
- an understanding of the challenges and opportunities experienced in their enactment
- an Action Research approach to strategy for progressing SD in the NHS

Figure 1.3 Context-level research aims

Chapter 4

The purpose of this Chapter is to outline the components of a theoretical framework of Action Research for SD in the NHS which is grounded in the Participative Research Paradigm and is therefore a guide to how an academic researcher can engage in the process of change in such a context. However because, as outlined in Chapter 2, the Participative Research Paradigm is compatible with the emergence of participatory perspectives on organizational change strategy, and due to the acknowledgement that knowledge is co-created by participants in a real context, the framework of Action Research becomes one which outlines a co-operative role for researchers and organizational participants. I describe how the choice of components I include is a response to the needs identified in Chapter 2 to integrate theories of change in organizations along with specific theories of change required for SD to enhance conceptualisation of Action Research for SD. In response to the need for theories of change, I propose the use of the traditional Action Research cycle for organizational change (described by Coghlan and Brannick 2005), and the linking of this to the Participatory Research Paradigm via an incorporation of the principles of Co-operative Inquiry (e.g. Heron and Reason 1997) within these cycles. I describe then how the critical approaches to learning to which co-operative inquiry is directed could be extended to more directly address the goal of SD by incorporating the need for purposive vision as well as critique within the theory-building process of co-operative inquiry. I introduce the concept of a 'conversational map', informed by Sterling's model of paradigm change for SD, with which to guide this process of theory-building. The framework I present also

provides guidance on the need to develop links between any internal Action Research initiative, and the wider context of influence in which it sits. The role of the Action Researcher in integrating these aspects of theory building for SD with multi-level learning process is incorporated along with a role for practitioners as active participants within this.

In the second part of the Chapter, the framework is applied to the context of the NHS via the guidance of the 'conversational map' to help identify a dominant organizational paradigm using the descriptors of purpose, strategy and practice, and to contrast this with what is proposed in policy and guidance for NHS SD. The map is used to identify the nature of the dominant paradigm and what is proposed, from the review of NHS and its SD agenda, provided in Chapter 3. In summary then, the framework proposed in this Chapter seeks to integrate theory on Action Research process, with theory on how Action Research process can contribute specifically to change in organizations, with theory on the nature of the challenges posed by the SD agenda in the context of the NHS. I outline how this theoretical framework leads to specific research objectives for both levels of inquiry, relating to the potential and challenges it offers both researchers and practitioners in their roles as they attempt to understand and effect change for SD.

Chapter 5

In Chapter 5 I outline the methods used to explore my research objectives, which relate to the potential and challenges of this proposed framework of Action Research for SD in the NHS, for practitioners and for researchers. I describe two phases of research. Phase 1 can be viewed as a preparatory phase for Phase 2 in which trial of the framework as a guide to co-operative research between me, as a researcher, and practitioners in the NHS, took place. Enactment of the framework required two elements to be addressed first in Phase 1. First the theoretical propositions about the nature of challenges within the NHS context which form an important part of the overall framework outlined in Chapter 4 needed to be tested for their ability to help understand real challenges and opportunities in SD initiatives. This was explored through 15 interviews with those leading initiatives for NHS SD in various parts of the UK, and in national policy. I provide a detailed account of how these interviews were conducted and analysed in order to build on the theoretical propositions made in the framework. Phase 1 also served to establish the relationships, trust and shared purpose between me as an outside researcher, and practitioners working on real-life SD initiatives, necessary to carry out co-operative research in Phase 2. I describe how the interview process also enabled me to open up communication with

potential participants for Phase 2 and led to the recruitment of a group of 5 senior managers from NHS Nottingham City. I provide an account of the design and specific methods involved in a 12 month Action Research initiative with this group which aimed to develop their organizational SD strategy. I also describe the mechanisms established to evaluate and make sense of this process in a format which met the action-oriented needs of the group, as well as the theoretically-focused needs I had in order to write this thesis.

Chapter 6

In this Chapter I present and interpret the results of Phase 1. The purpose of this Phase was to build on the theoretical propositions made regarding the nature of potential challenges and opportunities of SD in the NHS, through empirical research. This process enabled me to define differences in SD initiatives and a reasonably clear division into two broad categories, reflecting the two distinct areas of policy for SD identified in the literature review. So some focused only on an internal agenda of environmental resource management (Category 1), and some focused on the advancement of a broader interpretation of SD as Public Health (Category 2). Category 1 projects were led by NHS organizations themselves but Category 2 were led by, or at least had significant involvement of, outside organizations as partners. As well as these differences in purpose, Categories 1 and 2 also differed in the nature of their strategy and practice. Category 1 focused mainly on the achievement of linear, predictable outcomes such as cost savings or emissions reduction. Category 2 showed some inclusion of these approaches, but also showed evidence of more complex models of strategy and practice involving the negotiation of shared objectives and trial and error, and less of a focus on measurement of outcomes. An 'enabling' function was identified for a number of Category 2 projects which were explicitly aimed at building the capabilities, structures and relationships necessary to progress these more complex objectives. Indeed, the establishment and institutionalisation of such capacity was in many cases as much an objective as specific outcomes for SD. Seen through the theoretical propositions outlined in Chapter 4, it is possible to understand why some projects are able to develop purpose, strategy and practice which challenge that which dominates, and some do not. Most challenges to these are evident in Category 2 projects which relied on the efforts, funding and will of external organizations which hold different interests to the NHS. Examples of these organizations included those responsible for supporting regional economic development, such as the Regional Development Agencies, or environmentally focused NGOs such as the Soil Association and Groundwork. The results provide further clarification of the potential role of such a theoretical framework within Action Research for organizational SD: if

champions and project teams are required to navigate a multi-level context in order to understand and progress the challenges and opportunities afforded by a variety of interests and influences, then the framework provides a guide to this context, as well as the learning process required to work effectively within it.

Chapter 7

In Chapter 7 I tell the story of what happened when enacting the Action Research framework for organizational SD, with a group from an NHS Primary Care Trust (PCT) called NHS Nottingham City. I introduce the group, and the organization, along with their requirement from this process which was to advance their organizational strategy for SD. I then describe what I did to enact the framework which was i) communicate the framework and invite them to participate via a formal proposal, ii) establish a Co-operative Inquiry group and its ground rules, iii) using the theoretical understanding of context (contextual map), propose definitions of their current interpretations of SD, propose revisions and develop an action plan, iv) facilitate group activities using the 'conversational map' to reflect on progress towards actions and revise plans accordingly, v) facilitate repeated cycles of action and reflection including a final evaluation.

Through the three parameters of group concerns, group dynamics, and my concerns, I tracked what happened at every stage. In summary, the group began with a mixed interpretation of SD comprising mainly internal Environmental Resource Management, but with some elements of SD as Public Health. In various formats, I posed the question to them about the extent to which they could extend their interpretation beyond its focus on internal Environmental Resource Management to include not only the way they ran their buildings, but also their supply chain. In the case of a PCT, most of its budget is spent on others to deliver services on their behalf and I asked whether there were requirements for Environmental Resource Management which they could place on these service providers. With respect to SD as Public Health, I also asked whether or not they could recognise and formalise the rather ad-hoc approach that had existed to date. As a result of what I identified as recurrent group dynamics, the Chief Executive was influential in persuading the group to act cautiously; it made sense to extend their Environmental Resource Management to providers as this was such a big part of their influence, but it was too risky to focus on SD as a Public Health agenda as this was not what the NHS performance management structure permitted them to do, and its lack of clarity in measuring outcomes would leave them open to too much scrutiny. In short the Chief Executive urged them to steer clear of this 'ethereal stuff' (quote highlighted in Table 7.3) and the rest of the group,

with the exception of the lead for SD, were comfortable with this. I interpreted this as the influence of organizational defences in action: discussion techniques which quashed the suggestion of trial and error, in favour of doing what could be easily understood and measured, and a lack of real commitment to discuss the root causes of these barriers. Their agreement to broaden the scope of their Environmental Resource Management to include the organizations they purchased services from, did not succeed as the levels of negotiation, understanding, and their lack of ability to outline an internal business case to do so, were challenges which were all too great at present. Instead the group focused their attention in developing internal Environmental Resource Management more efficiently, and engaging others in this. They did achieve some success with these narrower goals.

I document in this Chapter reflections I made throughout on the relationship between what I was doing in terms of the framework, and what happened, as well as reflections made afterwards. I identify two broad areas which seemed to have hampered success, and which I began to address throughout, but I was restricted in this effort by the time and situation available. First, there was some lack of clarity in my communicative role as Action Researcher in specifying the purpose of the framework and the role of participants in helping to enact it. I was also not as clear as I could have been about the role of the 'conversational map' in critiquing current progress and developing alternatives. I aimed to improve this communication as the process went on, but never felt I had gained full commitment on the process, due to lack of time as well as need to focus on outputs. Second, the focus on the formal group and change processes within this were not adequate to challenge persistent defences and I was not well placed as an outsider to raise challenging issues which could leave group members vulnerable when I left. Realisation of this as the process went on, led me to work with the lead for SD to develop networks of influence outside the group, and this process continues now.

Chapter 8

This Chapter discusses the contributions that this thesis makes to academic understandings at the meta-level of Action Research for SD, as well as at the context-level of organizational strategy for SD in the NHS and the potential for Action Research approaches to assist this. At both levels, I propose that there is much scope for further research to develop these propositions further.

At the meta-level, this thesis outlines a theoretical framework of AR for SD which builds on earlier concepts, specifically by extending the notion of AR as having a role in the promotion of conversations for SD in a context. Habermas' social theory of communicative

space (Habermas 1984, 1987) is proposed as a useful overarching concept to define these conversations as critical analysis of dominant organizational assumptions, which can be implicated in patterns of un-sustainable practice. This then draws the required attention to dominant interests, behind ideas and practice, which need to be engaged with if any revision of them can take place. I develop the notion of a 'conversational map', introduced in Chapter 4, as a means to help identify these dominant interests, assumptions and practice, but also to help articulate alternative visions, necessary to guide change. The framework I propose presents the process of revising these assumptions towards more sustainable alternatives as multi-level, involving organizational members, but also linking these members to external networks, and specifically with actors with influence over the dominant interests. The role of the Action Researcher therefore is presented as facilitator of a critical learning system, through the integration of theory (captured in the 'conversational map') with the learning processes described. The extent and ambition of this role as a facilitator of change, is such that it needs to take place in partnership with practitioners as co-researchers. The contribution of this thesis is in linking the previously disparate concepts of social change for SD, with organizational learning process, with AR process. It therefore takes a broad view of many aspects which could each be studied in more depth in more narrowly focused research. I suggest further research is required into the relevance of processes of social change for SD to the framework, into the different aspects of the multi-level learning system proposed, and into the ambitious proposals for academics and practitioners to work as co-researchers.

At the context-level, I contribute to a contextualised version of the 'conversational map' for the NHS, as a framework for understanding the challenges of progressing SD in NHS organizations. I propose that this approach helps to define and explain different interpretations of NHS SD identifying two distinct categories which are likely to face different challenges and opportunities because of the different ways in which they challenge or support the dominant organizational paradigm. These categories are those which focus on Environmental Resource Management, and those which seek to contribute to SD as a Public Health concern. Environmental Resource Management poses relatively few challenges if it is viewed as an internal resource efficiency agenda. SD as Public Health poses many more challenges and requires the influence and support of external vested interests for its development. I propose that this framing of the SD challenges in the NHS lends itself to use within an Action Research approach to organizational change. The framework of Action Research for SD which I introduced above as a guide for researchers can therefore also be seen as a guide for practitioners as it proposes a role for both within

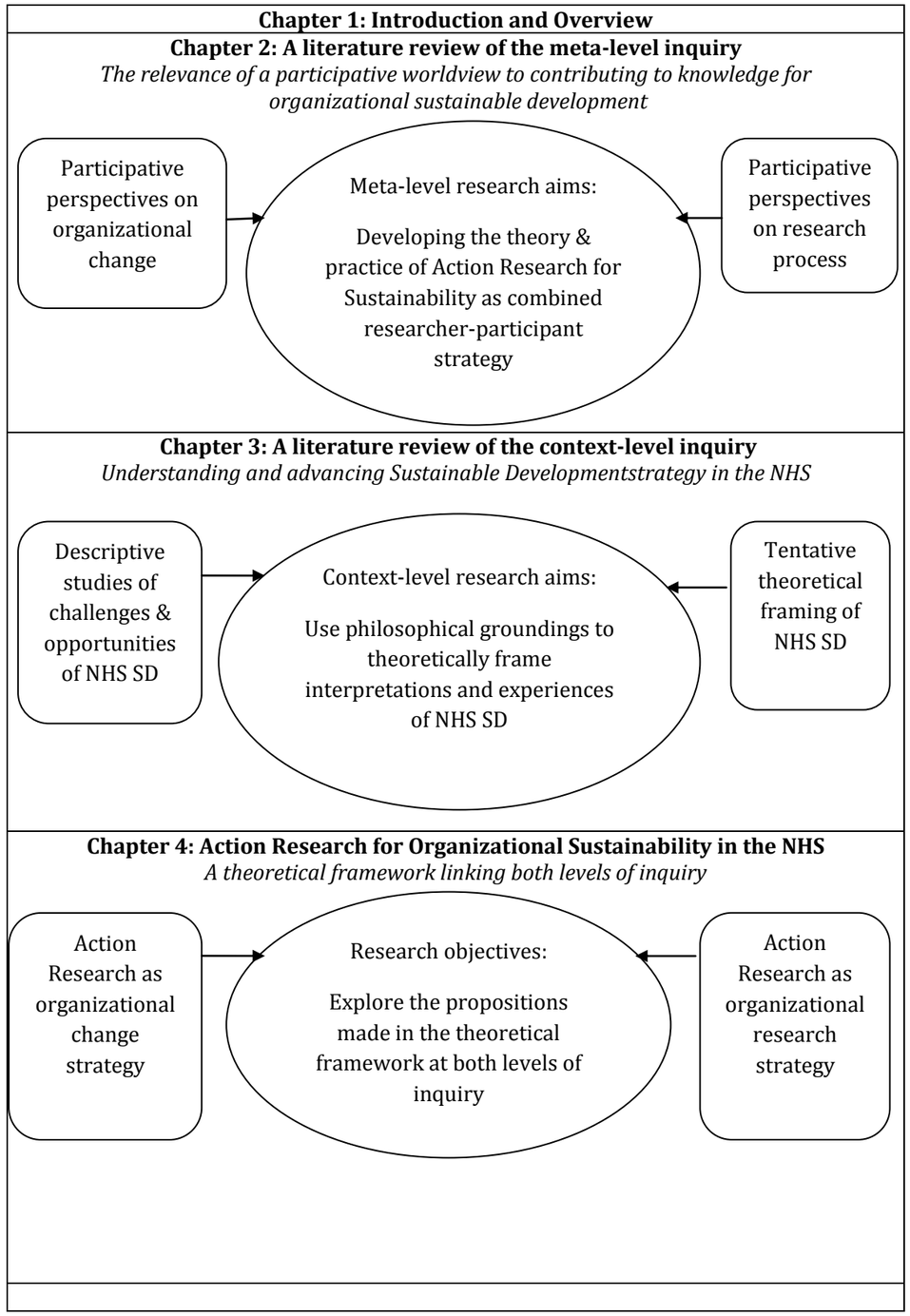
co-operative research designed to effect real change. I propose that, just as for the meta-level, the contribution made is one of making links; applying the model of paradigm change for SD to an interpretation of NHS context to enable a framework for defining and understanding interpretations of NHS in a format which can be linked to strategies of organizational change. I propose that further research to enhance the detail of different aspects within this would strengthen its use. E.g. contrasts between competing paradigms, the role of vested interests in shaping SD, and the co-operative researcher-practitioner Action Research strategy from the perspective of organizations. The application of this framing to other organizational contexts could also be explored.

Chapter 9

Chapter 9 includes a summary of the key ideas presented in the thesis. I use the key concept of 'conversations for SD' which I have found useful throughout to present my conclusions as being located within broader conversations already taking place at the meta-level and the context-level, and locate these conclusions within these. I note the implications of the significant changes currently being posed for the NHS following the White Paper *Equity and excellence: Liberating the NHS* (DH 2010). Specifically, I suggest that whilst the upheaval involved does not give people much time for reflective practice, the form of strategy development for SD offered by the framework, as a way of navigating changing contexts for the challenges and opportunities they pose, is potentially a useful one. I include responses to common questions which I have been asked throughout the research process, which I believe stem from the marginalised position of Action Research within the social sciences, and therefore the lack of broad understanding about it which exists. Finally I offer some personal reflections which relate to the notion of validity in Action Research, and how to improve this as an ongoing endeavour in my research practice.

1.4.1 A note on abbreviations used

From here-on, I use a number of abbreviations for repeated and lengthy terms and include a list of these on p.xi. I provide the full term for the first use within each Chapter, and in additional places where I think this would be helpful.



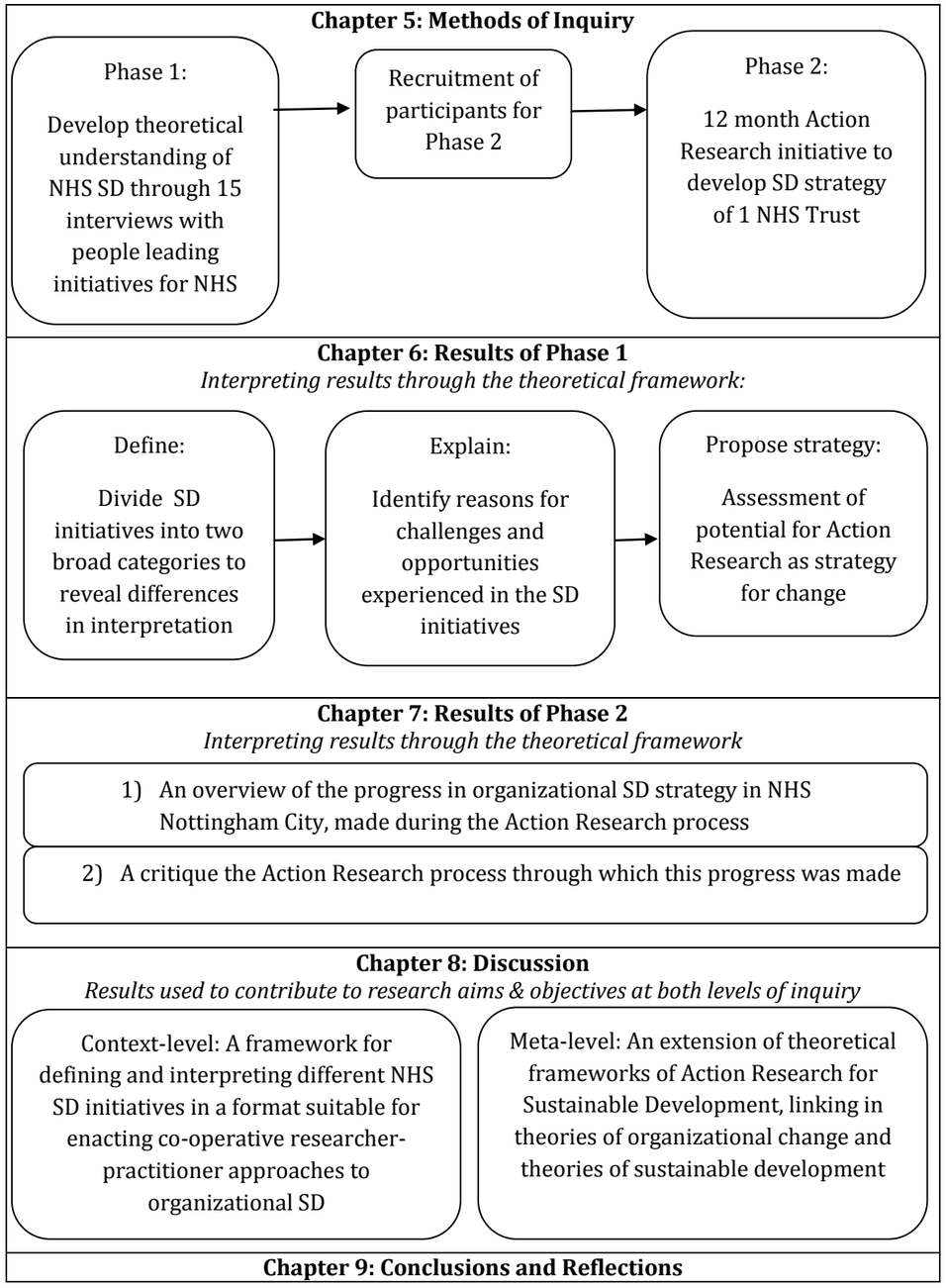


Figure 1.4 An overview of the Chapters in this thesis

2 A literature review of the meta-level inquiry: the relevance of a participative worldview to contributing to knowledge for organizational sustainable development

2.1 The proposed emergence of a 'participative' worldview

As I have already introduced above, in order to understand and address the persistence of dominant patterns of behaviour linked to the challenges of sustainability within Western Industrial societies, there is increasing interest in understanding and engaging with the cultural processes by which these arise. The terms 'social paradigm' and 'worldview' have been used by proponents of Sustainable Development (SD) to refer to these collective patterns of behaviour and the dominant assumptions and values which inform them, with a view to critiquing these and developing alternatives. Sterling (2003) provides an in-depth review of this approach to understanding the challenge of SD. He describes how the terms are generally used inter-changeably but that the term 'social paradigm' is defined more explicitly as a social phenomenon, using Capra's definition of a social paradigm to illustrate this:

> a constellation of concepts, values, perceptions, and practices shared by a community which forms a particular vision of reality that is the basis of the way the community organizes itself (Capra 1996 p. 6)

With respect to critiquing the dominant worldview for its role in un-sustainable behaviour patterns, Pirages and Ehrlich (1974), Catton and Dunlap (1980) cited in Milbrath (1984), and Milbrath (1984) are notable early examples, even before the term SD was coined. These are summarised in Table 2.1.

These first paradigm analyses outlined a range of problematic aspects of what Pirages and Ehrlich (1974) call a Dominant Social Paradigm, and abbreviated to DSP, which they define as a 'collection of norms, beliefs, values and habits and so on' (p.43). In each of these analyses, the common discussion is of destructive patterns of behaviour arising from a problematic, domineering relationship with nature and a dangerous belief in unlimited economic growth and consumption as the route to progress. Also notable in two of these examples is the idea that our relationships with other humans are too narrowly focused on the nuclear family. Whilst differences in focus exist between these, there are clearly areas of agreement.

Low value of nature Compassion only for those near & dear Acceptance of risk to maximise wealth No limits to growth Present society OK Old politics (expert-led, market control, opposition to direct action)	People have dominion over nature People are masters of their own destiny The world provides unlimited opportunities for humans Progress is the human way: for every problem, there is a solution	Progress Increase material affluence Necessity/goodness of economic growth Nature subservient Values: Work; nuclear family; career-oriented education; science and technology over religion
Adapted from Milbrath 1984p.22)	Catton and Dunlap (1980) cited in Milbrath (1984p.8)	Pirages and Ehrlich (1974)

Table 2.1 My own summary of the problematic aspects (environmental and social) of a Dominant Social Paradigm (DSP) as outlined by early paradigm analyses

Not only do these analyses provide an articulation of the main areas of concern within these norms, beliefs, values, and more, but they begin to point to the difficulties associated in revising them to more sustainable alternatives, specifically the influence of powerful interests in maintaining the DSP. Pirages and Ehrlich (1974) express how paradigms are held and reproduced over time by being 'transmitted from generation-to-generation by social institutions' (p.43). Indeed such a paradigm analysis is intended to critically expose the hegemony of powerful actors. Milbrath (1984) draws on Pirages later work (1982) to explain how difficult a DSP is to dislodge; 'nearly all of the values, norms, beliefs and institutions of the society are oriented toward maintenance of the paradigm' (p.7). As Pirage and Ehrlich, (1974) make clear, a DSP does not mean that everyone subscribes to the same norms, values and ideas. These differ by individual and by social group (e.g. families, regions, communities), but a DSP is a useful way to draw attention to the common content held by most. Cotgrove (1982) urges the same caution with respect to labelling everyone's perspective as the same. In Cotgrove's opinion, the DSP refers to the paradigm held by the dominant groups as those institutions in society able to exert an influence on its maintenance.

With respect to the articulation of alternatives more conducive to SD, Sterling (*op cit*) provides a detailed account of evidence which suggests that such norms, values and ideas, are in existence across many parts of society, and that the emergence of the SD discourse is an expression of these. He has provided a model to contrast what he terms an emerging

'postmodern ecological worldview' with the 'mechanistic worldview' (e.g. p.32) in line with the earlier analyses of paradigms included above which, he proposes, this seeks to critique and revise. I outline this model as it provides a comprehensive summary of the increasing interest in engaging with notions such as social paradigm change for SD, and why they are potentially helpful.

Sterling's model analyses the nature of these contrasting worldviews or social paradigms through three domains which he terms 'ethos' (which relates to philosophy and values), 'eidos' (which relates to intellectual concepts) and 'praxis' (which relates to actions). I simplify the wealth of evidence he provides within his thesis into Table 2.2. This is my diagrammatic interpretation of a written summary he provides (Sterling *op cit* p.172) on the domains of these contrasting paradigms. For each domain, his review provides an overview of a general pattern of emerging systemic thought.

Levels of knowing	**Dominant societal paradigm (mechanical)**	**Emerging societal paradigm (ecological)**
Ethos: values & norms	Separation, objectivity (perceive ourselves as separate to social-natural world)	Relational, participatory (perceive ourselves in relation to social-natural world) e.g the PRP
Eidos: cognition & intellect	Disconnected & discrete entities	Connections & relationships e.g.complexity frameworks
Praxis: integrative behaviour	Focus on manipulation & planned outcomes	Capability to seek & organize healthy relationships e.g. integrative actions such as adaptive management

Table 2.2 An overview of Sterling's framework for paradigm contrast (adapted from Sterling 2003 p.172)

In the domain of ethos, he describes the emergence of a deeply systemic appreciation of our relationship with the World and how we know about it, citing the Participatory Research Paradigm described below, as evidence of this. In the domain of eidos he maps the emergence of conceptual frameworks for understanding the World which are based, not on the reductionism and discrete entities, but on relationships and connectivity. He cites Capra (e.g. 1996; 2002) as someone who has sought to identify and explore the emergence of this systemic understanding across the natural and social sciences. In such diverse fields as biology (e.g. Goodwin 1994), physics (e.g. Heisenburg 1971) psychology (Maturana and Varela 1987), and sociology (Byrne 1998), concepts of relationship, emergence and unpredictability, and non-linearity are posing alternatives to previous foci

on the parts of predictable, linear systems, which Capra summarises as a 'Cartesian Mechanism', or a 'Mechanistic' approach (Capra 1996 pp.19-20). Capra (2002.,p.x) cites 'dynamical systems theory', 'the theory of complexity', 'nonlinear dynamics', and 'network dynamics' as examples of names for these emerging theories, and the mathematical language and systems concepts being developed to describe and understand within them.

In the domain of praxis, he maps the emergence of tools and techniques for integrating these values and intellectual concepts into appropriate practice, citing adaptive management (e.g. Berkes and Folke 1998) and eco-design (e.g. Zelov and Cousineau 1997) as examples of these. These conceptual frameworks potentially offer the scientific support for behaving more relationally, more co-operatively and less exploitatively. By understanding our social-ecological interactions as relational, we have an explanation as to why a 'mechanistic' approach is inadequate. If we envision our societies as 'complex systems', we start to appreciate the importance of relationships which exist between individual elements and how these relationships are fundamental to overall system behaviour. This approach to system understanding tells us that the behaviour of individual elements, as well as that of the system as a whole, cannot be controlled or predicted by a top-down process. System behaviour emerges, and its ability to formulate stable behaviour patterns is dependent on the nature and strength of the relationships operating between the agents.

This has real implications for developing responses to problems of un-sustainability. First, it provides us with a version of reality from which new frameworks for planning our behaviour can be derived. The 'Panarchy' model of Gunderson and Holling (2001), is one such framework which uses this complex systems understanding to do just that. It attempts to model how human and ecological processes interact across space and time, emphasising a shift from a focus on 'optimal solution and control over limited temporal and spatial scales, towards approaches emphasising cross-scale interactions and living with true certainty and surprise' (p.435). This acceptance of change and uncertainty requires a diversion from output-driven intervention to the building of resilience, which Folke et al (2002) define as 'the capacity to buffer change, learn and develop' (p. 437). In practical terms, this is a call to move from an output-oriented policy framework to one which is more process focused. Whilst the philosophy behind such approaches across SD is not always specified, arguably this is what people are trying to do when they propose new 'paradigms for SD'.

Sterling's intention is that the model;

> allows us to represent the ecological critique of Western culture, of Western ways of seeing/knowing/doing as well as indicating an integrative ecological alternative (*op cit* p.92).

This is clearly a bold and contentious claim and my perspective on this is first, that Sterling draws on extensive empirical research such as Milbrath's survey of values and beliefs in America (Milbrath 1989) and the World Values Survey (1990-1) described by Elgin (1997), which both recognized powerful trends which could be described as counter to those dominant in modern society, and which are largely consistent with the values and beliefs of SD. Second, I do not believe it is intended to be used for dichotomising. Sterling is at pains to point out how it is not his belief that emerging ideas are 'right', and dominant ideas are 'wrong' nor that SD initiatives could be neatly placed into either category. It is the patterns revealed which have potential to help navigate through the experiences of SD initiatives in organizations. I suggest the value of this approach is that it helps make **explicit** the debates which are already **implicitly** having an influence on the experiences of those tasked with progressing SD.

Examples of the trends which this model seeks to illustrate include Bagheri and Hjorth (2007) who are explicit about the problems arising from the lack of systems thinking existing within a prevailing paradigm, which focuses on static systems and fixed goals, and therefore results in practices which fail to acknowledge evolving dynamics of real socio-ecological systems. They advocate alternative approaches to planning built on a dynamic systems understanding, such as social learning. In what they call an alternative paradigm, the focus moves from fixed goals to building capacity for adaptation in a changing context. At the level of the management of individual organizations, Gladwin et al (1995) describe a dominant management paradigm they term 'technocentrism' which views the organization as separate from the rest of nature, and therefore leads to a lack of concern for impact and influence. They propose an alternative term 'sustaincentrism' to describe an approach which recognizes relationships and attempts to enhance these for the good of organizations and their systems as wholes.

As well as these examples of where an attempt has been made to **define** a sustainable paradigm for a context, there is also increasing interest in the process by which such sustainable paradigms can be progressed within a context. Consistent with Sterling's model, interest is being directed at the processes by which values, understanding and actions are created as social and complex. Such interest is evident in fields of inquiry such as 'Transition Management' for broad scale governance (e.g. Kemp et al 2009), 'Adaptive

Management' for social-ecological systems (e.g. Walker et al 2004), and some approaches to 'Organizational Learning' (Bradbury and Roth 2009) as is most relevant to this thesis. What these appear to have in common, is an interest in developing an alternative approach to problem solving where knowledge of the most appropriate solutions within any context, is not seen as a collection of static entities which can be dropped in to the system to achieve desired results. Instead, appropriate knowledge should be gained through engagement with the dynamic social processes of interactions and feedback which occur in real-life contexts. In short, knowledge, as well as the contexts of study themselves, are beginning to be viewed in systems terms, with significant implications for how strategy can be proactively shaped to achieve SD.

This section has made the case for a trend towards a critique of dominant values, concepts and practices, within discourse and practice for SD, and has outlined in broad terms the nature of this critique. Amidst this trend are debates about how academic research is conducted and in the next section, I describe the emergence of the Participatory Research Paradigm as an expression of this.

2.2 The Participatory Research Paradigm

The term 'research paradigm' is a very specific application of the broader term 'paradigm', and predates its use in the field of SD. Because of its specific and well established use within the research community, I choose to use 'Worldview' rather than 'Social Paradigm' from here-on, to refer to society outside of academic research. With regards to academic research, the term 'paradigm' was introduced by Kuhn (1962), to describe the collective assumptions, theoretical perspectives and ambitions which lead to distinct forms of research practice. Those interested in how research traditions develop and differ, e.g. Blaikie (1993), Crotty (1998), and Guba and Lincoln (2005), have attempted to categorize research traditions using a number of key terms: 'ontology' which refers to assumptions about reality, 'epistemology' which refers to assumptions about how we come to know such a reality, and 'methodology' which refers to the associated frameworks for research practice.

In most research theses the research paradigm in which it is grounded will be described in order to ensure transparency, and so that the reader can see there is a coherent rationale to the research design and implementation, even if they do not share all the same assumptions. This is indeed one of the aims of this section: I describe the Participatory Research Paradigm (PRP) as a collection of ontological and epistemological assumptions which I believe support the particular methodological frameworks I have chosen.

However in this case, the research perspective has additional significance in that it becomes the subject of inquiry in itself, i.e. the meta-inquiry. I now provide an overview of the perspective on knowledge and knowledge generation held by the PRP, how this is being used to inform research for SD, and the meta-level research questions which arise from the accounts of its use to date.

2.2.1 Research with a purpose

Advocates of a PRP propose particular versions of these assumptions which aim to advocate, and even advance, a systemic approach to life. Whilst it does not have its roots directly in the field of SD, it is based on a belief that social and economic problems, akin to those appearing in SD debates, are a result of our failure to understand the systemic nature of life and our agency within this, and therefore the relevance to research for SD is increasingly explored. It has a dual purpose: to contribute to social behaviour in response to social and ecological problems, but also to develop people's individual capacity for self awareness and agency in the midst of these. In both these respects, this makes it different to many research traditions in which understanding is sought, but in which actual influence on addressing the problems studied, is not. Reason (1999) helps to explain how the PRP frames a response to these two ambitions. Drawing on the ideas of the anthropologist, social scientist and systems thinker, Gregory Bateson, Reason describes how we humans are generally not very good at appreciating the systemic nature of life. Quoting Bateson, he explains that our conscious minds have developed to become a 'short-cut device to enable you to get quickly to what you want' (Bateson in Reason *ibid* p. 216). The PRP seeks to taper this shortcoming by being explicit about an ontology of relationships, implications of such an ontology for the concept of agency, and implications for how knowledge development is approached.

2.2.2 An ontology of relationships

The categorisations of research traditions referred to above indicate that the quest for achieving scientific knowledge of our world, has long been the focus for dualistic thinking regarding the nature of reality and the relationship of the observer to this. At one end of this spectrum are 'realist' ontologies which assume the existence of an external reality (object) apprehendable by an observer (subject). All categorizations show 'positivism' to epitomise this position, which as Crotty (*op cit*) explains, was popularised within the social sciences by Auguste Comte. At the other end is an 'idealist' ontology in which as Blaikie describes 'the external world consists of representations that are creations of individuals' minds' (*op cit* p. 16).

The critique of positivist claims to objective, value free knowledge, particularly within the social sciences, has been extensive, and much of this critique has been supported by the evidence produced by more idealist traditions. However, whilst the value of this critique is widely accepted, and has led to many rich interpretations of the social world from different perspectives, idealist philosophy has also been criticised, for its risk of solipsism; for denying the existence of any problems outside the realm of individuals, hence making it difficult to enact any solutions. Such criticism comes from research traditions which position themselves in some middle ground. Two examples of these traditions are Critical Realism, after Bhaskar (1978), and Social Constructionism of the kind advocated by e.g. Crotty (*op cit)*. Whilst coming from different starting points, (realism and idealism respectively), both aim to acknowledge the existence of real social challenges outside the realm of an individual observer so that it is not possible to justify inaction through relativism. However, both also state that our knowledge of these will always be interpreted through social frames of reference, hence the need for attention to a subject's perspective.

The distinction being posed between these middle ground ontologies and that proposed by the PRP is the nature of the link between object and subject. In the PRP this is explicitly participative. Heron and Reason (1997) describe a 'participative' ontology as:

> subjective-objective: there is a given cosmos, a primordial reality, in which the mind actively participates….so that what emerges as real is the fruit of an interaction of the given cosmos and the way the mind engages with (p. 4).

A concrete reality is not denied, but this is seen in relation to, and never separate from, the subjects, who are active participants in its continued creation. An individual shapes their articulation of the world via the frames they hold (e.g. values, beliefs, assumptions). As such, knowledge generation is viewed as a process of knowing (a verb), as distinct from a process of obtaining knowledge (a noun) as an entity. In addition to the influence of individual frames on this process, there is a social influence through a culture of shared art, language, values, norms and beliefs. Heron and Reason term this the 'intersubjective field' (*ibid* p. 278) which both influences and is influenced by, the individual's own articulation. Figure 2.1 is my own attempt to illustrate the intersubjective–subject–object relationship being described in this participative version of reality. It shows the subject and object in a continuous evolving relationship, but that this relationship also exists in a two-way relationship with the wider inter-subjective field which the relationship influences, but is also influenced by.

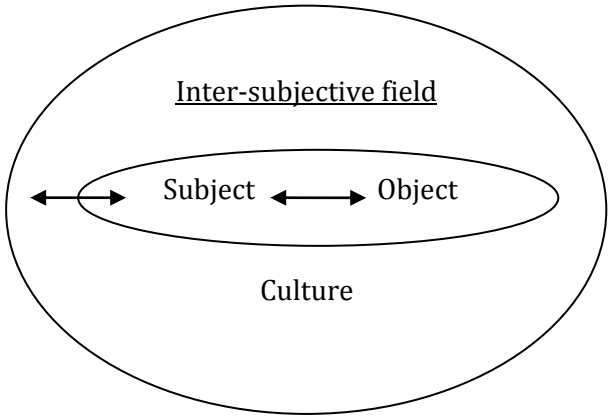


Figure 2.1 Ontology in the Participatory Research Paradigm

2.2.3 Implications of this ontology for concept of agency

The implications of perceiving the individual subject as fundamentally connected to the rest of the social and natural world in this way are significant and offer a response to another significant dualism of social science regarding the location of agency for change. This dualistic debate has at its core, the dominant and competing schools of social theory of the early twentieth century. On the one hand Structuralism understands social research as a quest for the hidden structural factors which shape observable phenomenon. On the other hand, Functionalism aims to understand the social rationality which determines individual behaviour, from which system characteristics arise. Research disciplines have tended to develop their traditions around either Functionalist (e.g. psychology) or Structural causality (e.g. sociology).

During the later twentieth century, attempts have been made to reconcile this dualism. Two widely cited examples of this are the Structuration Theory of Anthony Giddens (e.g. Giddens 1984) and the Theory of Communicative Action of Jürgen Habermas (1984, 1987). Gidden's 'Duality of Structure' describes an integrated version of agency whereby structure and agency develop together through a cyclical relationship; people draw on structure to engage in practice and in doing so, reproduce the same structures. For Habermas, the emphasis of such an integrative understanding of structure and agent focuses on the power interests which shape dominant structures and serve to trap individuals into reinforcing behaviours. Whilst Gidden's Structuration theory serves as an overarching ontological framework, it has not been translated into particular research traditions. Habermas' communicative theory has however: 'Critical Theory' aims to build

people's agency through revealing currently dominant interests which determine the frames and assumptions they subscribe to, as a basis for emancipation and change.

Much of Kemmis' work (e.g. Kemmis 2009) describes how the PRP is theoretically informed by Habermas to build onto the relational ontology, a concept of how agency can be developed within this, through particular forms of communication. So, in a systemic world, everyone, researcher and researched alike, act according to social frames of reference (akin to the concept of social paradigms which I introduced above) and will reproduce these unconsciously unless sufficient attention is paid to communication processes designed to question and alter these. 'Critical reflection' is the term used for this process by many working in the PRP. In line with Habermas' theories on the nature of communication, the focus of the PRP is to develop the conditions to achieve this. Like American Pragmatist Philosophy after Dewey and James, and later Rorty, the purpose of research then, is not to arrive at theoretical truths but, as Reason, in conversation with Rorty describes, it is to 'keep the conversation going' (Rorty in Reason 2003b p.109); to engage in the continued reflection on frames which guide behaviour, in order to enhance agency of people in their real world context. The quest for knowledge should never be separated from experience. The research endeavour (or the process of arriving at more complete knowledge), is therefore experiential, and highly participative, as is captured in the epistemology advocated by the PRP now described.

2.2.4 A participative, experiential epistemology

The PRP develops two important implications from these understandings of knowledge as socially and experientially grounded, for its perspective on how knowledge can be progressed through the research process. First, **experience** is the primary source of knowledge, and second, knowledge is not only a theoretical entity but **a living process** embodied in symbols, metaphors and in our actions themselves. Heron's model of an extended epistemology summarises both of these implications. Figure 2.2 is an illustration of the pyramid Heron uses to depict this.

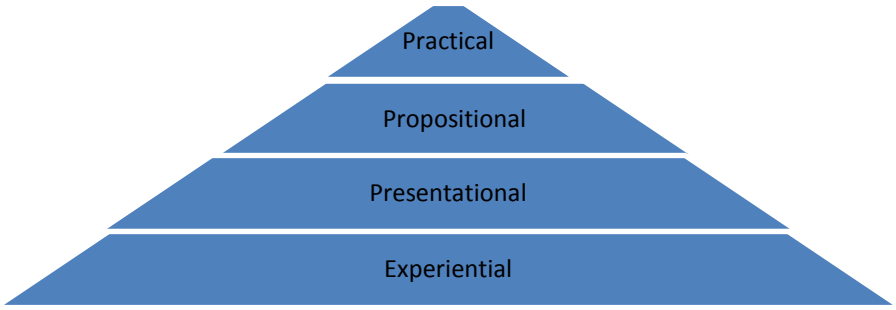


Figure 2.2 Heron's four aspects of an extended epistemology (e.g. Heron and Reason 1997 p.282)

The model shows experience as the root from which understanding derives, first presented in our symbols/metaphors/art (presentational), from which it is then possible to theorise (propositional), and finally act (practical). Heron and Reason (*op cit*) term the need for cultivation of 'critical subjectivity', referring to an awareness of the four ways in which we come to know about our world, to understand the contradictions or congruence which currently occurs between them, and to understand the extent to which our practice really expresses our experience, meanings or propositions. Such awareness also includes 'critical inter-subjectivity', meaning an awareness of how our individual frames are related to the collective frames of our wider human communities. To act to our full potential would be to engage with all types of knowledge and to attempt to express these in our actions. In short, we miss a trick if we concentrate solely on theoretical knowledge, and deny the active, and much broader, process of meaning-making which takes place all the time, and which also guide our actions. To clarify, throughout this thesis I use the term 'knowledge' to refer to conceptualising types such as propositional, experiential, presentational, and practical, and 'knowing' to refer to the active fruition of knowledge types in practice.

2.2.5 The methodological frameworks of Action Research in the PRP

The term 'methodology' refers to what actually takes place in the process of research. 'Action Research' (AR) is the name used for a very broad collection of approaches undertaken within this research paradigm. As Kemmis (2001) describes, the name is also used outside of this paradigm to refer to less critical, less participatory, and less purposive action-based research, leading some authors, himself included, to adopt the prefixes of Critical and Participatory to place their own approach to AR within the tradition of the PRP just described. As I have outlined the PRP explicitly, I am comfortable with the shortened term of Action Research to refer to the methodological approach I adopt. As Reason and Bradbury (2009) helpfully summarise, AR within the PRP appears to have five general characteristics which those researchers working from this perspective, have in common. It is attempting to adhere to these, rather than to the specific details of what gets done, that is most important. They illustrate these characteristics with the diagram shown as Figure 2.3.

So, as Pragmatist philosophy advocates, the quest for knowledge should focus on **practical issues**, aiming to help people address the issues of importance to them, by overcoming the dominant frames which Habermas drew attention to in his Critical Theory. This ultimately should be aimed towards helping to build agency for change, and therefore **human**

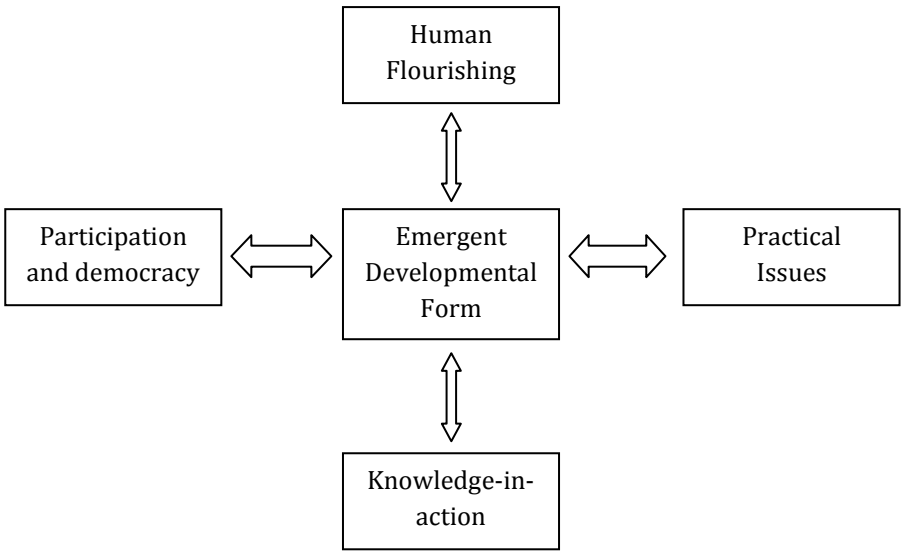


Figure 2.3 Characteristics of Action Research (Reason and Bradbury 2009 p. 5).

flourishing. Based on a relational ontology in which knowledge is understood as continually socially produced and reproduced, the enhancement of critical awareness must be a **participatory process**, in order to engage with the processes which generate these frames (or the social paradigms) which guide us. To really engage with this social process of knowing, we must recognise that it is broad in scope and that we do not just act in accordance with theoretical propositions, but as a result of **many ways of knowing** which grow out of all aspects of our interactions with the social and ecological world. These four characteristics are succinctly summarised in this definition:

> Action Research is a participatory process concerned with developing practical knowing in the pursuit of worthwhile human purposes. It seeks to bring together action and reflection, theory and practice, in participation with others, in the pursuit of practical solutions to issues of pressing concern to people, and more generally, the flourishing of individual persons and their communities (Reason and Bradbury *ibid* p.4).

Finally, Reason and Bradbury extend this understanding to advocate research as an **emergent process**. In other words it is not appropriate for a researcher to provide a fully detailed research plan at the outset of a project, and adhere rigorously to it throughout. To stay true to the commitment to participation, and in recognition of the evolving nature of relationships which exist within a context of study, research must be flexible enough to allow creative responses along the way. However, this does not mean that a research project should not be planned at all. A number of guidance frameworks exist to help structure a research project to help ensure that it does embraces emergence, along with each of the other four characteristics described above. As Dick (2004) summarises, these include 'Participatory Action Research' used mainly in less community settings in

developing countries, 'Organizational Development cycles' as are used in this thesis, 'Action Science' also focused on organizations, 'Appreciative Inquiry' which adopts a particular approach to problem-solving, and 'Co-operative Inquiry' which supports group learning processes in any context. All emphasise different aspects of concern which reflect the contexts in which they are used, but if grounded in the PRP, subscribe to the desire to develop agency in line with the Pragmatic philosophy introduced above.

2.2.6 Quality and validity in AR

As described by Bradbury and Reason (2001) the notion of 'validity' within research in the social sciences is a subject of much debate, tied up with the different philosophical roots of each research paradigm. Reason (2006) outlines a detailed account of how validity can be understood from the perspective of the PRP, through the related concepts of purpose, quality and choice. First, the distinctive purpose of such research, as influenced by many philosophies including pragmatism and critical theory, is not to arrive at a single and valid truth, as it is in the traditions influenced by positivism. Neither is it just to deconstruct all versions of the truth, as in postmodern traditions. Rather, it is to develop theory about how best to act in a particular situation; to link intellectual theories with timely and purposive action. This has been summarised by Reason and Torbert (2001 p.9) as 'analogous theory building': the comparison of theoretical understanding about what a situation comprises now, with a theoretical vision of a desired state, in order to inform action for progressing such a vision, or in Reason's own words:

> to forge a more direct link between intellectual knowledge and moment-to-moment personal and social action so that inquiry contributes directly to the flourishing of human persons, their communities, and the ecosystems of which they are a part (Reason 1996 p.189).

Reason (1996) describes how the characteristics of Action Research, which I have included from an updated source, in Figure 2.3 above, can be viewed as a guide to the components necessary to support this analogous theory building, which draw attention to the complexity of trying to achieve reasoned behaviour from this perspective. To summarise these, the process must involve not only the researcher's understanding of a situation but must aim to place participants' understandings as central. It must forge as close a link as possible between the theory building process and the context with which these theories are concerned. It must be geared towards assisting people to flourish and be active participants within the health of their communities and ecosystems. It must engage with a variety of forms of knowledge in addition to propositional theory. Finally, it must be flexible, with the researcher accepting that these characteristics cannot be

planned for at the outset, but are supported most successfully by research which emerges over time. Quality comes not from viewing all these aspects as criteria which can be externally verified, but as signposts which remind of the complexity of working towards the revision of a social paradigm, and guard against the potential pitfalls involved. As these signposts do not lend themselves to external verification even if we wanted to achieve this, validity in AR is instead viewed as the clarity of intention provided within choices made to consider these ambitions as the research unfolds.

Reason (*ibid*) refers to three broad levels at which we relate to the World, and therefore where clarity of intention must be developed: to the self (1st person), to co-researchers (2nd person), and to wider communities of shared interests (3rd person). For this thesis, I have sought to develop this clarity in different ways accordingly. The thesis itself is my form of communication of intention with the wider research community, specifically researchers concerned with how to contribute to knowledge for SD through the framework of AR for SD presented and developed throughout. In this written account, I communicate choices made regarding the philosophical groundings I subscribe to, the interpretation of these into the key components of the framework I present, and the methods used to enact it and make sense of what happened. As I explored this framework with people from the NHS, these broader thesis intentions were contextualised and made real. In the story I tell of what happened in this inquiry with others, I describe how I communicated intention, specifically using a model of four parts of speech necessary for clarity in communication (Torbert and Taylor 2008) as a guide. This was especially relevant to the key stages of group establishment and evaluation, but also as the process unfolded and raised questions about how to achieve what I had hoped for, and how to respond to these questions. As well as making much effort to describe this process of relations with the group as I recount key stages, I add some final reflections on the extent to which I managed to maintain clarity and how these influence the development of my research practice. Finally, I kept a personal journal throughout the thesis process, using it most throughout the time I was engaged with others in the group work, to help me record and understand the decisions I made. I refer to these entries in the account of the group process to help me understand my part in what happened. In addition, I include some reflections on my role in the thesis as a whole, and the sense I make of the experience of working towards it, in its concluding Chapter.

2.2.7 Dual level inquiry – implications for academic research practice

It is precisely because of the deeply systemic perspective on knowledge and knowledge generation that the PRP seeks self-reflection on its own grounding assumptions, and

therefore necessitates a dual level of inquiry. At the contextual level, it advocates that AR methods take place in a context where particular issues are being explored, such as in the NHS where staff attempt to advance SD. AR should therefore be seen as a means of achieving actions in a real-life context. At the meta-level, research initiators engage in an inquiry into the whole process of research: how it is generated, carried out, and its findings disseminated, as a means to contribute to researchers' own personal practice, as well as to the generalised understandings amongst other researchers who largely share this perspective. I now summarise existing theoretical ideas of AR for SD, and how I have used these in the development of my own meta-level research questions.

2.3 Action Research for Sustainable Development

In this section I propose that the frameworks of Action Research within the Participatory Research Paradigm are extremely relevant to SD as approached through the lens of social paradigm change described above. If SD requires the revision of particular values and assumptions which guide behaviour, then AR offers already well established guidance on learning situations designed to help reveal these within a particular context. In this section, I review the conceptualisation of this role for AR which has already taken place, identifying aspects of this to which I seek to contribute through the meta-level inquiry of this thesis.

2.3.1 Defining a role for Action Research in Sustainable Development

There has been some broad conceptualisation of a role for AR in SD, particularly within the context of organizations. In this regard, I firstly identify the concept of 'relational practice' as described by Reason et al (2009). This concept has been introduced to describe what goes on in initiatives which seek to address SD, in order to lay the groundwork for proposing a role for AR within this. From the perspective of the PRP, knowledge-making process is viewed as the very essence of day to day activities, and it is not just academic researchers who own the right to engage in it. Viewing all activity for SD as knowledge-generating activity, provides a particular conceptualisation of the endeavours of SD practitioners in any real-life context, and poses important questions about how an academic researcher can assist in this process. SD practitioners in any organization, be it public, private, large, small, formal or informal, can be described as being engaged in a very specific set of social, communicative activities. Reason et al (2009) refer to these activities as 'relational' by drawing on a number of accounts of real-life efforts for SD, in a diverse set of organizations. They summarise these as being centred on explorations of alternatives to the dominant paradigm operating in their context. These activities involve a critique of non-systemic ways of doing things, and advocacy and

development of more collective approaches to working than those which currently dominate, and which cross professional, as well as organizational boundaries which have developed under the dominant paradigm. SD practitioners are therefore involved in relationship building, and communication exercises amongst those with different perspectives, and seek to find ways for people to share ownership of tasks and work in ways which are mutually rewarding. In summary, the tasks involved manifest in such activities as:

> working with stakeholders, mobilizing teams, having dialogues with people who hold different views, getting people to commit to take action, negotiating roles and priorities, and getting efforts aligned (p. 97).

By recognizing this activity as, in broad terms, a critique of 'strongly-held often unspoken, conventions of what is normal, acceptable and reasonable action to take' (p. 99-100), an acknowledgement of how complex this task is, can begin to be developed.

In short, such SD initiatives involve not just the advancement of technological know-how, but the ability to develop a practice of 'relational' activity, which I now call 'relational practice', which exposes, and allows for the transformation of dominant paradigms, to allow systemic ideas and working practices to flourish more freely. The articulation and identification of these activities by Reason et al (*ibid*) is extremely helpful in drawing attention to what actually progresses SD in practice, and therefore what should be recognised, resourced and developed within SD strategy. Reason et al (*ibid*) make the case that currently much of this work is under-valued, referred to as just 'being nice' or 'getting on with somebody' (p. 98). Detailed acknowledgement of relationships and the activities which enhance them is not generally deemed appropriate for the workplace. However, failure to address these requirements leaves those tasked with leading SD without adequate support. Reason et al (*ibid*) describe the plight of those working to progress SD on behalf of their organizations, whom they term 'champions', as walking a fine line between a broadly positive perception of themselves as maverick innovators, and becoming 'the "weird" person or group, who have stepped over some unwritten line of acceptable behaviour' (p. 100). Once they have overstepped this line, it is difficult to be effective, but if they do not push hard enough, they will effect little change: a difficult balance indeed.

Although the term relational practice is not used, the role of AR in contributing to this effort within the context of organizations is also evident in a model by Ballard (2005) of the conditions which need to be fostered in order to progress SD. Ballard's model, aimed at Action Researchers, helps categorize the kinds of activities which Reason et al (*op cit)*

refer to as relational, into three useful categories of activities. I abbreviate his summary of what these conditions entail as:

i) **'Awareness'** amongst actors, of the agenda, scale, urgency and relevance of the issues, of the systemic structure of the issues, and of the limits to human agency in controlling outcomes.

ii) **'Agency'** amongst actors meaning the ability to do something through role development, acquiring skills, and potential to address wider contextual issues.

iii) **'Association'** between actors, referring to the support, the sharing of perspectives, and the influences of networks on broader system change.

(abbreviated from Ballard *op cit* p.142-143)

In Ballard's view, the fostering of these conditions is vital to achieve organizational change, and it is not adequate for any of these conditions to be addressed in isolation:

> Any coherent strategy for change needs to address the three conditions in parallel. The need for balanced progression may also explain why organizations often seem to make a change but then do not maintain the progress (Ballard *op cit* p.145).

Together, the ideas of Reason et al (2009) and Ballard (2005) help us view the 'champions' involved in SD initiatives as people engaged in trying to foster all of these aspects: raising their own levels of **awareness** of the systems they operate in, and helping others to improve theirs, developing their own **agency** and that of others, as well as building broader networks to support the change process through increased **association.** These descriptions are helpful in describing the potential for Action Researchers to contribute to these efforts. They paint a picture of efforts for SD as the playing out of tensions between actors across a system with different assumptions and values; SD champions are trying to critique and reveal these within their daily strategy, hence a potential role for Action Researchers who arguably hold the methodological frameworks to do just that sort of thing.

2.3.2 Incorporating the notion of analogous theory building into this role

As outlined in the overview of the PRP I provide above, the specific offering of AR is in the support of purposive, analogous theory building. Bradbury (2006) has described the nature of this theory building as 'promoting conversations for SD' (p. 236), helping those involved in a context to understand the dominant paradigm in which they operate, and to articulate alternatives effectively. Bradbury (*ibid*) describes the tensions which exist between what is advocated through policies of SD (the purposive vision) and currently

dominant approaches, as different voices in a conversation, some of which may currently be marginalised. This conversation-based approach is illustrated by this quote:

> ...the human world, as we know it, is produced and reproduced by the innumerable acts and conversations that we undertake daily…in our micro-interactions. Change towards sustainability then requires intentional micro-changes catalysed through a logic of attraction by a compelling new vision and discourse. Before intentional change can be fostered however, it helps to realize what reality we have co-created, however unintentionally' (p. 241).

A similar proposal is also made by Meynell (2005), who describes how Action Researchers could have a role in identifying what he calls 'conversational lineages' defined as the:

> recurring and inherited themes that are discernable over time, and which contribute to the emergence, definition, and ongoing life of an organization, its organization, and its structures (p. 218).

This is a useful way of conceiving of the role of the Action Researcher in this process. Its understanding of visions of SD as being the marginalised voices within systems where alternative, more powerful voices dominate, provides a justification for taking these visions of SD seriously, when they might otherwise be dismissed as fanciful, and unrealistic. This portrays the political role of the Action Researcher in giving voice to these minority views. I propose that this role can be conceptualised further by linking more directly to theories of knowledge, learning and change in organizations to understand further how such conversations for change can be supported. In addition, I propose that it is necessary to develop understanding of the nature and content of the conversations including general guidance on the nature of assumptions likely to need critiquing, and the nature of assumptions inherent in alternatives being proposed for SD. The linking of theory with action is after-all the purpose of AR but as Dick et al (2009) suggest in their introduction to a special issue on the topic of theory building in AR, the process by which this is achieved is often not given sufficient attention. Theories of SD abound within the academic pool of knowledge, and it would seem appropriate for the Action Researcher, in their support of conversations for SD, to engage explicitly with these.

In the remainder of this Chapter, I therefore identify supporting concepts which could address both of these identified areas of further development. First, I turn to organizational learning literature to identify how the process of knowledge, learning and change can be perceived in a format compatible with the PRP in order to guide the selection of appropriate AR frameworks and specific methods. Second, I return to the model of paradigm change for sustainability offered by Sterling (2003) which I introduced

above, to propose its use as a guide to nature and content of conversations required in AR for SD.

2.4 Pragmatic approaches to organizational learning

As documented and reviewed by Easterby-Smith and Lyle (2003), the field of knowledge and learning in organizationss has grown rapidly since 1990 and can be navigated by distinguishing between four recurring terms: '**organizational learning'**, '**learning organizations'**, '**organizational knowledge**' and '**knowledge management**'. In Figure 2.4 taken from this review, Easterby-Smith and Lyle (*ibid*) distinguish between a focus on theory and practice, as well as between process and content to show how '**organizational learning**' is generally a study of learning process, whereas the '**learning organizations**' literature seeks to advocate an 'ideal' type of organization where learning capacity is fostered. The former is generally the remit of academia, and the latter generally the interest of practitioners. Similarly 'organizational knowledge' refers to discussions of the nature of knowledge itself and 'knowledge management', the technicalities of dissemination and leveraging that knowledge. These definitions are used to inform use of the terms from here-on.

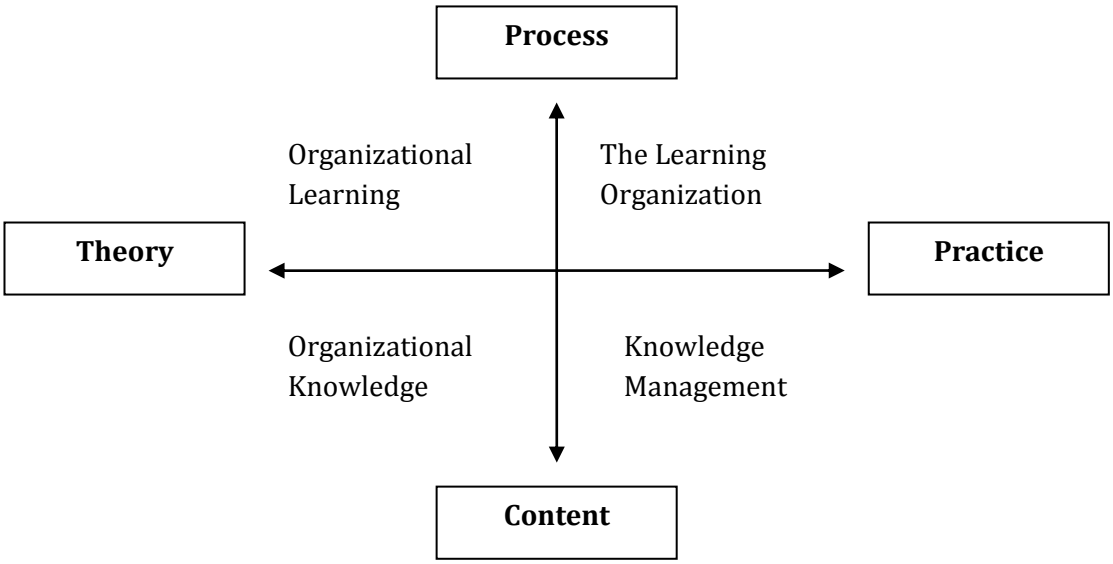


Figure 2.4 Mapping topics in learning and knowledge in organizations (Easterby-Smith 2003 p.3)

Evident in this field are changing concepts of organizational knowledge, learning and the link between the two, as well as the type of support which can foster organizational learning. Significantly, concepts of organizational knowledge appear to be shifting from a cognitive understanding of knowledge as arising in the individual minds of organizational members, to an understanding based on the concept of 'social learning' which appears

compatible with that of the PRP. I now introduce a model of learning developed by Argyris and Schon (1978) which has been extremely influential in understanding the need for attention to organizational learning; through the concept of 'defensive patterns' Argyris and Schon describe how the default position within organizations is generally not to learn, at least at the level of purpose and strategy required within change for SD. Learning instead tends to remain at a more superficial level. Then, with reference to Elkjaer (2003), I propose that whilst the value of this framework is not denied, it has tended to lead to an over-emphasis on the potential for individuals to overcome these defensive patterns. What is now required is a shift in focus from individual learning experiences often arranged in a training room remote from the workplace towards more contextualised learning based on the active engagement of employees in the continued development of their organizations. This shift is supported by the trend which was observed some time ago within organizational learning literature by Blackner (1995) to view the beliefs and assumptions governing behaviour, not as static, observable 'knowledge types' but as dynamic forms of 'knowing' which are 'mediated, situated, provisional, pragmatic and contested' (p. 1021).

2.4.1 Understanding 'defensive patterns' after Argyris and Schön

As I understand it, the 'theory-of-action' model of Argyris and Schön (1978) has three important parts; first is the idea that individuals' behaviour within organizations, is governed by their '**theories-in-use'**, defined as the rules which they use to inform their actions. These often contrast with their beliefs and values, termed '**espoused theories**', which are often difficult to implement in practice. Regardless of the critique of this model which I also draw upon below, this distinction is not challenged, and remains influential to the framework I develop for Action Research within this Chapter. I therefore summarise the definition in the words of Argyris (1990) for reference purposes:

> Human beings hold two kinds of theories of action. The first is their espoused theory, which is composed of beliefs, values and attitudes. The second is their theory-in-use, which is the one they actually use when they act (p. 23).

Second, is the distinction between single-loop learning, as learning to enact the same theories-in-use, but in a better, more efficient way, and double-loop learning, as learning which progresses the elusive espoused theories through attention to beliefs and values. This involves an identification of the mis-match (or errors) between what is espoused, and what is enacted, and correction of these. This distinction also remains an important grounding concept throughout this thesis, and I therefore provide its commonly used summary diagram, along with definitions of key terms, for reference purposes:

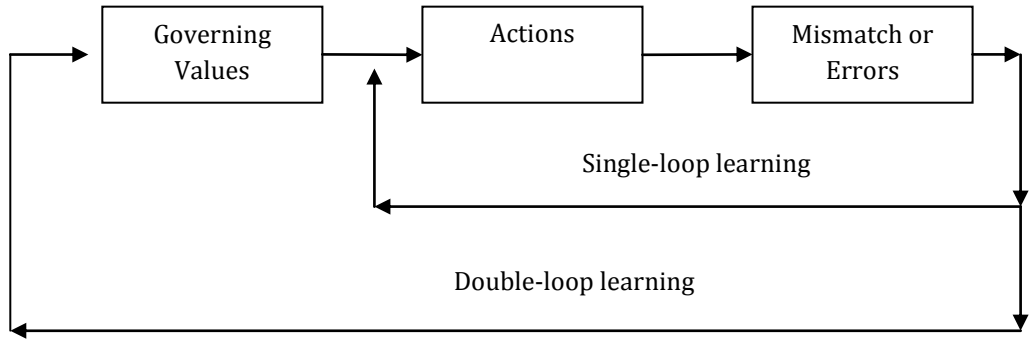


Figure 2.5 Single-loop and double-loop learning (Argyris 1990 p. 94)

To comment some more on this distinction,

> Single-loop learning solves the presenting problems. It does not solve the more basic problem of *why* these problems existed in the first place (p. 92).

In double-loop learning however:

> …errors cannot be corrected simply by designing new actions. To correct these actions, we must first alter the governing values (p. 93).

The third important part to this model is the explanation of why double-loop learning is difficult, and this is explained through the concept of organizational defences. The model proposes that organizational behaviour is likely to be dominated by a universal theory-in-use, which they call Model I. This is based on the premise that;

> …human beings seek to be in command of their actions. They feel good when they are able to produce the consequences that they intend. They abhor feeling or being out of control (Argyris *op cit* p. 12).

In response to this need, Model I behaviour comprises the governing principles of unilateral control, winning, minimising upset, and maintaining rationality. These defences lead to the bypassing of situations which cause threat or embarrassment, and the cover-up of such by-passes by presenting it as rational behaviour. They advocate that alternative behaviours, called Model II, can be learnt, where the emphasis shifts from control and defence, to openness, transparency, and learning. The governing principles of Model II are therefore a commitment to valid information, informed choices, and a responsibility for how well these choices are implemented. Within Model II, actors strive to make their meanings and intentions clear, and they aim to expose the gap between intention (espoused theory) and action (theory-in-use), so that this can be addressed. It is therefore

a relinquishment of control, and a commitment to accept potential embarrassment and upset as necessary parts of the learning process. Because of these distinctions, Model II would be more likely to support double-loop learning than Model I. The work of Argyris and Schön (1978, 1996), and Argyris (1990) provides examples of how people have learnt Model II behaviour. However, as summarised by Elkjaer (*op cit*), the critique of many approaches to this learning, is that it has tended to focus on the learning experiences of the individuals involved. As Pragmatic concepts of organizational knowledge grow in appeal, the need to engage in the social origins of these organizational defences has been raised. This critique would seem theoretically consistent with the philosophical perspective of the PRP, and I therefore now outline this in some more detail, in order to inform my understanding of how context-based Action Research can contribute to Model II learning and the promotion of double-loop learning through attention to organizational defences.

2.4.2 A note on the additional concept of triple-loop learning

The concept of learning levels introduced in the models of Argyris and Schön, has been widely accepted as a useful means to differentiate between learning which seeks to improve existing practice (single), and that which seeks to develop alternative practice based on different values and assumptions (double-loop). Three levels are often described by those wishing to make such a point. For example, Swieringa and Wierdsma (1992) use 'Principles', 'Insights', and 'Rules' and Hawkins (1991) uses 'Service', 'Strategy' and 'Operations'. The schematics of level 1, 2 and 3 learning and single, double and triple-loop learning are used to refer to these as summarised in Table 2.3.

Swieringa and Wierdsma (1992)	Principles (Triple-loop)	Insights (Double-loop)	Rules (Single-loop)
Hawkins (1991)	Service (level 3)	Strategy (level 2)	Operations (level 1)

Table 2.3 Linking organizational knowledge types to learning levels

The nature of the learning required and the method for achieving this differs according to level. Hawkins (1991) describes how Level 3 learning relates to questions of epistemology and ontology: of an organizations's perceptions regarding its role in the World, and its relationship to it. I understand the term double-loop learning within the models of Argyris and Schon, to refer to anything higher than single-loop, and not necessarily to deny the existence of a highest level of philosophical groundings. The definition of double-loop learning provided by Argyris (1990) in Figure 2.5, as at the level of 'governing values'

provides an indication of this. As I introduce below, I use Sterling's model of paradigm change for sustainability as a means of defining the levels of learning, and what they comprise, which I believe helps to avoid any confusion with regards to the meaning of double or treble-loop learning.

2.4.3 The social origin of organizational defences

As summarised by Elkjaer (2003), previous models of organizational knowledge have over-emphasised the cognitive understanding and denied the influence of institutional and social contexts. In addition to critiquing the model of Argyris and Schon (*op cit*) in this regard, similarly criticised is that of Senge's five disciplines of the learning organization (e.g. Senge 1990), for emphasis on the development of individual capacity for revision of the mental constructs which influence behaviour. Instead these influential models must be developed to promote a shift in focus away from individual learning experiences which are often arranged in a training room, remote from the workplace. This should be replaced by an emphasis on contextualised learning based on the active engagement of employees in the continued development of their organization, supported by the necessary organizational structures to enable such high levels of participation. From this perspective, helping an organization to become a learning organization involves a shift of attention from individuals' competence, to the creation of social situations where collective active learning can take place. Contextualising learning to the social relations which comprise daily working-life holds potential to expose and challenge conflict and power, and as Elkjaer argues is therefore more likely to result in the organization itself being able to learn and change.

In what would seem to echo the extended epistemology in the PRP described by Heron and Reason (*op cit*), Cook and Brown (1999) summarise the increasing conceptualisation of organizational knowledge as situated and contextual, and organizational learning as social and active, as an extension of the epistemological understanding of organizational learning. Just as the pyramid of an extended epistemology, shown in Figure 2.2, emphasises the need to engage in many ways of knowing so Cook and Brown wish to raise the profile of tacit knowledge to an equal footing with explicit knowledge, or that which is conceptually expressed. Tacit knowledge is held by individuals but is also held by groups in their shared meanings. Therefore in this understanding there are four types of knowledge discernable: an individual's tacit and explicit knowledge, and a group's tacit and explicit knowledge. The most radical part of Cook and Brown's extended epistemology of organizational learning is the addition of 'knowing' as distinct from these four knowledge types. For them, 'knowing' is the act of bringing the four types of

knowledge into play in a practice, akin to Heron and Reason's fruition of knowledge types into action. Their extended epistemology is shown in Figure 2.6. The more practice is informed by knowledge, the more disciplined it is, but knowledge types without 'knowing' are just abstract tools. In the PRP, and in this extended organizational epistemology, action is viewed as the culmination of all the types of knowledge.

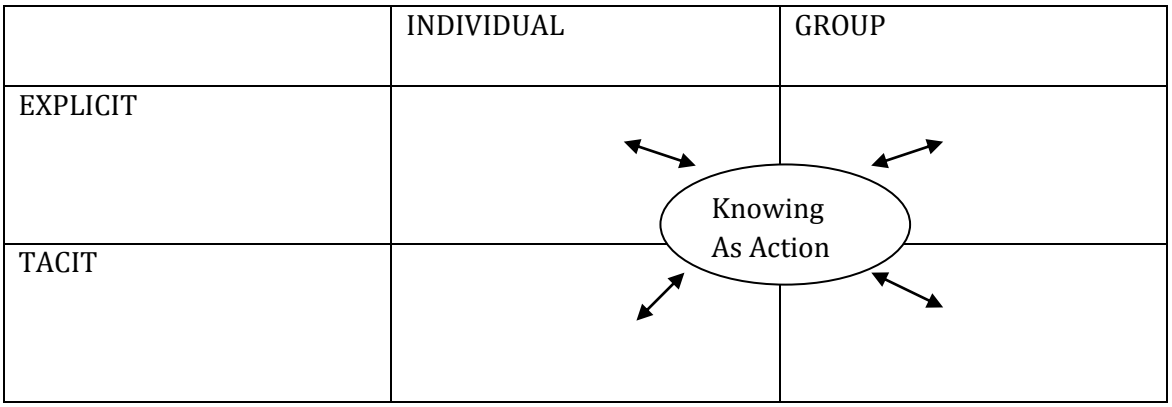


Figure 2.6 An extended epistemology of organizational learning (Cook and Brown 1999 p. 383.)

This perspective of organizational learning, draws on the same American Pragmatist philosophy which places experience at the heart of learning that has already been introduced with respect to AR in the PRP. As Cook and Brown concluded in 1999 regarding 'learning organizations' theory in general, there is a need for more case studies in order to develop understanding of the nature of support that organizations can provide to create capacity for individuals and organizations to learn, and the types of training and educational programmes which would provide for the passing of knowledge and the development of group practice for change. Action Research based on the same perspective of knowledge would seem to be a response to this need, even if it has arisen from a slightly different part of the organizational development community.

2.4.4 Implications of this perspective for AR for organizational SD

Conversations for SD must engage with learning processes which are suited to the challenges of achieving all levels of learning, if theories-in-use within organizations are to be shifted towards the aims of SD. Seen from the perspective of learning and change in organizations outlined above, the characteristics stated as central to AR (Figure 2.3) provide a compatible approach to this situated, experiential endeavour. The significant role of organizational defences in preventing higher levels of learning from taking place must not be underestimated. As Elkjaer (*op cit*) suggests, power interests must be engaged with to begin to tackle these. In a context such as the NHS, power interests are likely to be exerting effect at many levels, often beyond the confines of organizational members. As I describe in the next section, Sterling's model of paradigm change for SD is

well placed to represent what these multi-level interests may be, in a format which has been specifically developed to contribute to achieving highest levels of learning required for change towards SD.

2.5 Sterling's model of paradigm change

As described in 2.1, Sterling's generic model of paradigm change for SD is offered as a means of understanding the problems with 'mechanical' assumptions which dominate across Western industrialised society, and to contrast these with evidence for 'ecological' alternatives emerging. He proposed that such patterns of tensions are (in broad terms) likely to reflect the tensions evident in attempts to progress SD in many contexts, and that articulation of the nature of these could help to understand and therefore address their causes. Specifically, it could help to reveal conflicts of interest, as well as conflicts of intellectual concepts and know-how. As I now describe, the model has potential use to help the conceptualisation of AR for SD and the need for analogous theory building within this. It presents the tensions in a format conducive to processes of learning at all levels of organizational knowledge as just discussed through the link it makes between the three domains of a paradigm, and three levels of learning.

2.5.1 Linking paradigm domains to levels of learning

Paradigm Domains	**Levels of learning required to change**	**Correspondence to model of Argyris & Schon**
Ethos: values & norms	Level 3	Double-loop learning
Eidos: strategy	Level 2	Single-loop learning
Praxis: practical know-how	Level 1	

Table 2.4 Linking domains of a paradigm to learning levels (adapted from Sterling 2003 p.431)

In Table 2.2, I summarised Sterling's model to contrast a dominant paradigm with a more ecological version emerging. Table 2.4 is a summary of Sterling's proposal to link the domains of a paradigm with levels of learning required to revise content within them. In this, he specifically refers to Bateson's categorisation of levels which was an earlier model than that of Argyris and Schon. He notes the relevance of Argyris and Schön's distinction between single and double-loop learning to this, hence I have added this to Table 2.4. In Bateson's schema, learning at Level 1 is knowing how to do something and therefore relates to Sterling's domain of praxis. Learning at Level 2 is knowing what you are doing, as well as how, and therefore relates to Sterling's domain of strategy. Learning at Level 3 is knowing why you are doing something, as well as what and how, and therefore relates

to Sterling's domain of ethos. The process required to achieve learning at each level requires a different level of abstraction. At Level 1, learning is targeted at making the job in-hand more efficient and effective. Level 2 learning requires strategic consideration of different options available so could result in doing different things. At Level 3, learning is most fundamental concerning the principles and perceptions we hold about how the World is, and our relationship to it. Then, revision of praxis requires Level 1 learning, revision of eidos requires Level 2 learning and revision of ethos requires learning at Level 3. Being itself grounded in the PRP, this model sees knowledge at each level as systemically related, so change at one level influences, and is influenced by, change at another. However, the implication of Bateson's and Argyris and Schön's concepts of higher level learning implies something of a hierarchy: our highest level paradigm domains (values and norms) are fundamental determinants of which strategies and conceptual frameworks we choose, and which methods we use in practice.

2.5.2 An illustrative example of the model's application to education policy

Sterling's own application of the model to the context of developing SD within formal education policy and practice, particularly in the UK, illustrates the value of taking the time to articulate potential paradigm tensions in this format.

Domains of Paradigm	Dominant mechanical paradigm	Application to education	Emerging ecological paradigm	Application to education
Ethos: values & norms	Separation, objectivity (perceive ourselves as separate to social-natural world)	Instrumental view: preparation for economic life	Relational, participatory: perceive ourselves in relation to social-natural world	Transformative view: participation in sustainability transition
Eidos: strategy	Disconnected & discrete entities	Top-down prescriptive policy process	Connections & relationships	Participative, contextual policy process
Praxis: Practical know-how	Focus on manipulation & planned outcomes	Transmissive, didactic styles	Capability to seek & organize healthy relationships	Transformative, co-productive styles

Table 2.5 Sterling's model of contrasting paradigms in education (adapted from Sterling p.470)

Within educational policy, Sterling uses the model to highlight the many challenges which are likely to arise within calls for sustainability education. There are too many to include here, but he suggests that the dominant educational values, arising out of our perceived separation from the rest of the social-natural world, will allow an instrumental view of education, where it is just seen as a route to economic life. The ecological paradigm would

not view the purpose of education in this way, seeing it as helping people to participate in 'the sustainability transition' (p. 470).

In the eidos domain, he cites the increase in conceptual frameworks to help understand these relationships, citing the complexity sciences as examples of emerging 'ecological' theories with which to conceptualise the world and the interactions which take place within it. In complex systems theories, interactions are understood to emerge from dynamic interactions and feedback between parts, and as such, are not predictable. Management and intervention within complex systems therefore requires attention to the quality of relationships within it, and to building capacity for adaptation to change, not so much to the manipulative strategies for desired outcomes. Examples of the application of these ideas to the educational context include the view that a dominant educational paradigm is managed along linear concepts of how systems work, with objectives set by central government, and attempted implementation via top-down control. He summarises this as the concept of 'managerialism', evident within education, where efficiency, standardization, and inspection have become the norm. Within the ecological critique, there would be calls for more contextual, locally determined curricula, organized along principles of participation by teachers in the establishment of goals and strategies, but also the participation of learners.

In the praxis domain, he cites attempts to integrate insights from emerging ethos and eidos, into appropriate forms of practice, exemplified by techniques and tools such as 'adaptive management' and 'eco-design'. In such practices, working relationships with the human and non-human world, aim for co-operative synergies rather than being focused on exploitation through manipulation, which Sterling claims to dominate praxis at present. Examples of the application of these ideas to the educational context include the view of teaching and learning within dominant education as transmissive and didactic, in contrast with those transformative, co-productive styles advocated as a critique.

Sterling believes it could assist our understanding of why change for sustainability is also difficult in other public policy areas, where policy and practice is informed by much the same paradigm as it is in education:

> What is limiting education – I will argue – is the fundamental educational paradigm which informs its thinking and practice, and which derives from the context of the wider socio-cultural paradigm and its view of the nature and role of education. These frameworks have been overlain in recent years – not just in the world of education, but also in local government, health, police, and other areas of public life – by quasi-market and

> managerialist ideas and forces which, arguably have narrowed our shared conception of what education means and entails (p. 47).

2.5.3 Potential relevance of this model for AR for SD

I propose that this model could be used as a guide to the nature and content of conversations required in AR for SD in other organizational contexts; its relevance to other organizations operating within public policy has been particularly well illustrated through its application to education policy. It has potential as an aid to analogous theory building in context by providing a guide to the nature of the dominant paradigm and the potential challenges this offers proposals for SD. In the language of conversations for SD already introduced, it can therefore be seen as a 'conversational map' to aid the articulation of competing assumptions, ideas and practices. Further, it has potential to help guide an Action Researcher in developing an understanding of their role in integrating the three conditions which the model of Ballard, as reviewed above, outlines as 'awareness', 'agency' and 'association' (Ballard 2005). So, with respect to awareness the model's generic understanding of social paradigms in tension, can inform analysis within a context, especially a public policy context, which like education, will be influenced by these wider patterns. With respect to association, it has potential to help identify the actors, interests and source of essential ideas which need to be engaged with, to actively progress the ecological paradigm. With respect to agency, the model does not offer any specific guidance other than to highlight the nature of the learning required (single, double, and treble-loop) with a view to ensuring that processes of learning are considered appropriately. I aim to make the case that Action Researchers, with their frameworks for transformational learning, are well placed to develop this learning process.

In the remainder of this Chapter, I pay some attention to parallel interests in the potential for learning process to contribute to SD within literature concerned, from a practitioner's perspective, with organizational strategy. This leads me to conclude the Chapter by posing some meta-level research questions to explore the potential of an AR learning approach to theory building for SD relevant to both researchers and practitioners.

2.6 Action Research as organizational strategy for Sustainable Development

There is an emerging area of interest in concepts of learning in organizational SD strategy, which differ from those already described in this Chapter, with respect to their target audience. Unlike the theories of AR for SD already reviewed, which seek to define and advance a role for researchers in how best to contribute to knowledge for SD, these are

aimed at guiding practitioners in how best to develop real-life strategy and practice for SD. What this Chapter seeks to propose is that these two areas are converging in their logic, towards an integrated researcher-practitioner effort at engaging in active knowledge creation for SD in a real context, therefore leading me to identify meta-level research aims which converge to some extent, with those addressing the context. In this section I provide a review of these concepts within SD strategy, proposing that they could be enhanced through a researcher-practitioner approach to AR.

Concepts of organizational learning as strategy for SD are evident in the work of Doppelt (2010) and Senge and Castedt (2001) which builds on popularised notions of organizational learning, not specifically targeted at SD, published by Senge (e.g. 1990). In these accounts, the need to critically reflect on dominant organizational paradigms is central, and participatory learning process is seen as having a crucial role within this. I provide an overview of the claims they make in this regard, and of how these are influencing others in proposing that learning process should be part of strategy for SD. I suggest that the frameworks of AR for organizational SD as discussed above, could potentially offer more detail in how such learning can be supported.

2.6.1 The need for critical reflection on organizational paradigms

That organizational strategy for SD requires attention to underlying, often unarticulated assumptions governing organizational behaviour is a point being increasingly made. With respect to the role of organizations in SD, McDonough in Doppelt (2010) describes how:

> long term prosperity depends not on making a fundamentally destructive system more efficient but on transforming the system so that all of its products and processes are safe, healthful and regenerative (p. 8).

Here, a distinction is being made between organizational efforts which attempt to engage with the previous norms of the 'fundamentally destructive system' and those that remain unchallenging to these. The argument that assumptions should be challenged in order to progress more systemic assumptions of what an organizations is for and how it should function, has been made by Doppelt (2010) and Senge and Carstedt (2001) who both describe how most organizations conform to the assumptions underpinning a linear production system, whereas sustainability requires alternative assumptions for a circular system to take root. Doppelt (2010) terms linear production systems as 'take-make-waste' (p. 34) and circular as 'borrow-use-return' (p. 35). Doppelt's distinction between these two models of how we consider the production-consumption system is most succinctly expressed in his own words which I therefore include here. Table 2.6 indicates how Doppelt contrasts the fundamentally different assumptions on organizational

purpose and organizational strategy contained within the two models. I have identified quotes which support the model of paradigm change used in the 'conversational map' (Chapter 3) in which contrasting ideas can be categorized into those relating to purpose and those relating to strategy.

In order to understand the extent of the challenge of sustainability, Doppelt explains that embedding a circular model within organizations, challenges the deepest assumptions of those working within them:

> After two hundred years of experience with this straight-line 'take-make-waste' production system, it has become firmly embedded as the dominant economic paradigm in the psyches of most Westerners (p.34).

Similarly, Senge and Carstedt (2001) contrast a linear industrial-age system with an alternative 'cyclic industrial system that mimics nature' (p.29). As in Doppelt's circular model, natural resources are extracted for making products but instead of the waste products being disposed of, these are used to feed the system via a mixture of remanufacture, recycling and composting.

Linear Model of Production-Consumption	**Circular model of Production-Consumption**
Contrasting purpose	
…focuses on producing products and services and delivering them to the customer in the fastest and cheapest way possible. Not much else matters (p. 34).	While the linear economic system continually depletes the environment and often harms socio-economic wellbeing, the circular model maintains and restores the environment and enhances economic and social welfare. (p. 34 – 35)
Contrasting strategy	
Humans extract resources from the Earth's surface, turn them into goods, and then discharge the massive amounts of often highly toxic waste the system generates back into nature as either air, water, and soil pollution or as solid, industrial and hazardous waste (p. 34).	.. .the circular (or closed-loop) approach utilises environmentally benign energy, raw materials, construction and manufacturing processes, and continually re-circulates materials that are now thought worthless waste back into the industrial system as feed-stocks for new business activity or back to nature where they become nutrients for renewed growth. Thus it can be considered a borrow-use-return system (p. 34 – 35).

Table 2.6 Contrasting organizational paradigms with respect to Sustainable Development (from Doppelt 2010)

Such circular models described by Doppelt, and Senge and Carstedt, are most clearly concerned with the replenishing of environmental resources, but the broader SD agenda is also prominent in their ambitions for these models. Both extend the notion of nurturing to the social as well as environmental system. Doppelt emphasises the need for equitable distribution of resources, and protection and enhancement of workers, communities and cultures operating within the system. Senge's argument is for systems thinking in its widest sense: the ability to understand connections operating between an organization and the larger systems in which it sits (social as well as natural).

2.6.2 The need for participatory forms of strategy in paradigm revision

Both Senge and Doppelt advocate the need for more participatory, less hierarchical forms of governance and leadership than those which currently dominate in organizations, if models of circular production and consumption are to take root in organizations. Doppelt has focused on the changes in strategy required to shift organizations from hierarchical, mechanical management designs which serve to control linear models of production, to a more participatory style of management which enables knowledge of relationships and impacts throughout the system, necessary for sustainable decision-making, to be enhanced. Doppelt's seven-spoked 'Wheel of Change toward Sustainability' (Figure 2.7) aims to provide an overview of the change processes organizations must engage in to establish these more participatory styles of management drawing on many years researching organizations in public and private sectors.

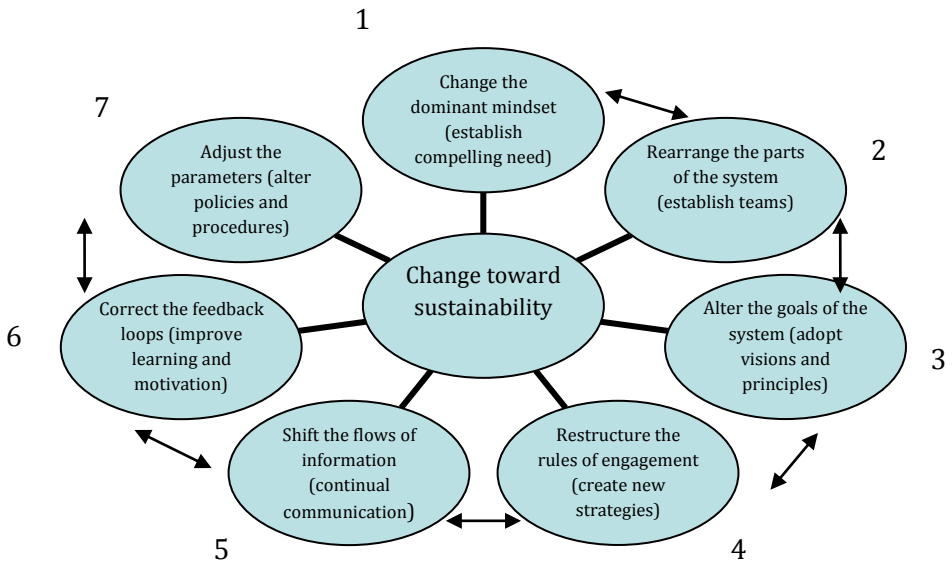


Figure 2.7 Doppelt's 'Wheel of Change toward Sustainability' (Doppelt 2010 p.107)

He presents them in a wheel to indicate that these do not occur in a linear fashion; change is messy, and focus usually moves between elements. However, he claims the elements do form a natural progression. Elements 1, 2 and 3 are concerned with creating a new organizational design by changing mindsets (making SD an imperative), rearranging relationships (multi-disciplinary teams) and altering goals (adopting visions and principles of SD). The 4th and 5th focus on operationalizing these new principles through new strategies and continued communication about them, and the 6th and 7th concern the institutionalisation process of fostering learning and embedding in procedures.

Whereas Doppelt's ideas would appear to have arisen within the context of organizational strategy for SD, Senge was not originally focused on organizational SD but on the need to develop human capabilities necessary to enable organizational survival within an increasingly complex and rapidly changing globalised economy. Much of Senge's work has therefore focused on the human dimension of learning and change required to achieve the shift from linear to circular behaviour in organizations. As discussed by Grey and Antonacopoulou (2004), Senge popularised the term the 'Learning Organization' to refer to strategies for creating innovative organizations. However, his 'Fifth Discipline' framework (Senge 1990) is based around the ability of organizational members to understand whole systems (their organization in the wider social, economic and environmental context) and develop strategy which responds to such systemic understanding. Therefore this framework is increasingly applied to the SD challenge, by others as well as by Senge himself (e.g. Senge and Carstedt *op cit*). The five disciplines which comprise this framework are 'systems thinking', 'personal mastery', 'mental models', 'shared vision' and 'team learning'. In Table 2.7 and the accompanying text, I provide a summary of what these are intended to promote within organizations seeking change, as these have been influential within the application of organizational learning principles to SD, as is described below.

5 Learning Disciplines	**Description**
Systems thinking	The ability to see wholes, relationships and patterns rather than parts and snapshots
Personal mastery	The ability to develop a vision and contrast this with current reality as a motivation for change
Mental models	The ability to surface, test and improve the deeply held images of organization and surrounding world
Shared vision	The ability to develop collective vision from the interaction of evolving personal visions
Team learning	The ability to evolve a shared vision together through open dialogue and discussion

Table 2.7 Senge's five 'Learning Disciplines' (Senge 1990)

'Systems thinking' is about the mental models of systemic relationships which allow people to focus on relationships instead of discrete entities, patterns not snapshots. As well as being able to understand the relationships between an organization and the systems of which it is a part, systems thinking extends to the ability to understand the internal workings of the organization itself systemically, understanding concepts of feedback and non-linear influence, where every part of the organization is related. This whole organization perspective on problem solving is fundamentally different to a silo perspective of individuals and departments working mainly in isolation, which Senge implies is the norm. Senge's other four disciplines are concerned with developing this systems thinking and turning such ideas into appropriate organizational actions.

'Personal mastery' draws attention to the need for individuals to personally grow and by this Senge means to develop their own vision (not based on an organizational blueprint) and develop their capacity for seeing the gap between such a vision and reality. This 'creative tension' he describes as the source of motivation for committed action and change. As introduced above, this focus on human development makes this work extremely relevant to ideas of social SD which, as a discourse is often described in terms of empowerment, wellbeing and participation. The discipline of **'mental models'** is Senge's language for explaining that individuals' articulations of organizational life comprise only partially accurate images of the organization and the world around them. As the world changes the gap between these models and reality can grow, leading to counterproductive actions, unless there is a concerted effort to continually revise them. Senge links this to our inability to see the whole system. The revision of the mental model which see organizations as distinct and closed entities operating independently of the world around them, is a necessary part of the development of systems thinking. In this framework, the development of **'shared vision'** draws on the discipline of personal mastery. Personal visions develop and grow through the process of interaction with others to form an organizational vision. The development of this enables an organization as a whole to achieve creative tension and a collective appreciation of the gap between its ideals and current reality which is a powerful motivator for organizational change.

Senge's final discipline is '**team learning**'. People need to get better at dialogue and discussion to deal with what he terms the 'defensive routines' which occur in most organizational settings and which prevent genuine learning and growth. The implications of systems thinking are great and difficult for individuals to deal with because the central message is that our individual and collective actions shape our reality, and therefore everyone needs to change. Most teams need improved skills to achieve a process where

individual visions for change can be expressed fully in a supportive environment, and developed into a collective vision. In Senge's view, these human transformational processes are central and he has continued to delve deeper into them since his earlier work. In '*Presence*' (2005), Senge focuses on these, namely the experience (including the supportive environment necessary for this) of suspending and revising dominant mindsets that is necessary for people to be able to appreciate and enact circular models of production-consumption.

The strategic ideas more aligned with Doppelt and the human development ideas of Senge, have received interest from those concerned with organizational SD strategy. Some have proposed labels for an emerging discipline which encompasses combinations of many of these ideas. Sibenhuner and Arnold (2007) use the term 'sustainability-oriented learning' (p.339) to describe factors which they claim influence success in SD strategy and conclude that communication structures, self-organised groups, goals and guidelines, project work, change agents, multi-level leadership and external expectations and size of organization are all important. Molnar and Mulhivill (2003) use Senge's disciplines to explore the factors influencing what they term 'sustainability-focused organizational learning' in a number of organizations progressing towards SD. They cite educational resources, sustainability frameworks, a balance between internal and external expertise and inter-organizational support as important criteria.

An important point being made in all these accounts is that the process of change is as important a focus as the objectives and desired outcomes. Indeed Senge and Doppelt make such a point explicit. Neither lose sight of the objectives of SD; they go to great lengths to describe this with reference to circular production systems, but use this to advocate a participatory change process based on learning as opposed to focusing only on specific details of SD objectives. Doppelt suggests that such a recognition of process is innovative in comparison to outcome focused SD frameworks which have dominated to date of which he cites the examples of The Natural Step (Natural Step 2011) or Zero Waste (ZWNZT 2002). Similarly, Senge and Carstedt (2001) warn of the dangers of emphasising outcome over process and that 'focusing on eco-efficiency may distract companies from pursuing radically different products and business models' (p. 28).

2.6.3 Research gaps in organizational learning and SD

The empirical studies of Molnar and Mulhivill (*op cit*) and Sibenhuner and Arnold (*op cit*), have explored the evidence for learning processes evident in the work of Doppelt and Senge, within cases of organizational SD. Molnar and Mulhivill explicitly use Senge's five

disciplines as criteria for their study. In both cases, they ascertain the importance of these process factors in determining effectiveness of SD strategy. However, beyond the assertion that this learning process is linked to the need for paradigm change, there is little to explain why participatory learning process is so important within this, other than that it seems to work. This therefore leaves a gap in understanding more precisely how to build appropriate learning processes, and the kinds of initiatives which would support this. The concepts of AR for organizational SD which I have introduced above, and to which this thesis seeks to contribute, therefore also have potential to contribute to this practitioner-focused strategy, as the following stated research aims illustrate.

2.7 A summary of research aims at the Meta-level

Develop the theory & practice of Action Research for Organizational Sustainability as combined researcher-participant strategy specifically by:

- Addressing the need to build theory for SD as part of Action Research process
- Integrating theoretical understanding of learning process in organizations
- Defining an 'integrative' role for researcher, and a 'participative' role for practitioners

Figure 2.8 Meta-level research aims

3 A literature review of the context-level inquiry: Sustainable Development in the NHS

3.1 Introduction

As has been described in Chapters 1 and 2, the contextual topic of this thesis which is SD strategy in the NHS, is approached through the lens of the Participatory Research Paradigm (PRP). Chapter 7 recounts an Action Research (AR) process as a means, not only to learn more about this context, but also to make changes in it. To prepare for this, I need to review the context in a suitable format. In Chapter 2 I introduced the notion of a 'conversational map' to aid conversations for SD: a map which provides guidance to the likely tensions between a dominant organizational paradigm, and proposals for SD in contexts such as the NHS, and how this could be used in an AR process. The first aim of this Chapter is therefore to review the context in a way which enables me to generate a 'conversational map' of the NHS, as part of the whole framework of AR for SD which I outline in Chapter 4. The first part of this Chapter reviews changing policy and practice in the NHS since its establishment, to provide a generalised map of what the dominant organizational paradigm comprises in the domains of purpose, strategy and practice. As a caveat to the very generalised picture I paint, it must be remembered that the focus of this thesis is on linking disparate parts of academic literature, and practitioners, together. I conduct this mapping exercise as an outsider to academic studies of the NHS and it would in fact be a distraction from my own thesis aim to analyse this topic in too much depth. The more links can be forged between academics like me who originate from SD academic community, and those with an NHS background, the higher the quality of this mapping exercise is likely to be. As will be reflected on in the Discussion Chapter, this thesis is about making links in order that the detail can be researched in subsequent research.

The second part of this Chapter is a review of the SD agenda in the NHS, in order to later populate the 'conversational map' with signs of an emerging ecological paradigm. For this, I draw on document accounts of policy and guidance for SD in the UK public sector, and specifically in the NHS. Whilst this literature is more familiar to me, I am not an SD policy specialist, and subsequent research could also provide more detail to this aspect.

In the remainder of the Chapter, I review literature on SD strategy in the NHS to date: firstly, literature which has focused on describing the problems and then the relatively small amount of literature which has sought to develop theoretical understanding of these problems, and how to overcome them. I propose how the AR approach developed in this

thesis could contribute to this. I conclude with a summary of these context-level research objectives.

3.2 A review of current understanding of context

3.2.1 Understanding the NHS

In this section, I review the NHS with respect to its organizational structure, politics and policy over time, recurring tensions and debates and future directions.

3.2.1.1 Organizational structure

The NHS is not one organization but a collection of many different types of semi-autonomous organizations, funded by central Government to provide a vast array of health-related services across the UK. The NHS Confederation (2010) provides summary statistics which help illustrate the collective size of these organizations. These include net expenditure (£98.3b/year), staff numbers (1.3m) and throughput (1m patients every 36 hours). Organizational structure along with policy priorities, differ by country within the UK (England, Wales, Northern Ireland and Scotland). The overview provided in this Chapter, including the NHS Confederation statistics introduced above, therefore relate specifically to the NHS in England. This is because this thesis is not specifically concerned with comparisons between countries, which would distract from its main themes. The concern is whether such a map is helpful in the context of Action Research; once the potential for this is understood, the content of the map could be adjusted for different countries if required.

In England, as in other UK countries, organization types, which comprise the NHS, vary considerably in size, structure and remit. Informed by the NHS Confederation (2010) and Ham (2009), these vary from General Practice Surgeries where individuals can visit their local doctor, to self-governing Trusts. Such Trusts include Primary Care Trusts (PCTs) which currently receive the largest proportion of the NHS budget, and have a central role in prioritizing the needs of the local community, and allocating spend of this budget accordingly. So, they commission services from other organizations within the NHS, such as Trusts responsible for hospital care (including Foundation Trusts which have received additional status for autonomy), and those responsible for specialist community-based services such as Mental Health. Other NHS organizations include Ambulance Trusts which deliver emergency and first-responder services, and Strategic Health Authorities which monitor and oversee all NHS Trusts in their geographical region. This list of organizations is not exhaustive but, viewed with the collective statistics provided, should give a flavour of the scope covered by the NHS. However, it reveals little about the politics and people

which shape what actually comprises NHS activity. A common disclaimer made in analyses of the NHS is that its size and complexity mean that any understanding obtained is extremely partial. In a study of the limits of different interpretations of the NHS, Elkind (1998) provides a quote to illustrate this:

> The NHS is not only the largest organization in Britain, it is undoubtedly the most complex. So one of our main aims is to convey some sense of the extraordinary intricacy of the NHS: the innumerable patterns and interconnections that it contains; the complexity that is, in fact, beyond anyone's full comprehension. Like everyone else, what we can see is only part of the whole (Strong and Robinson in Elkind 1998 p.1715).

This is a snapshot of structure at the time of writing, but as is evident in the review of policy below, structure is subject to different political priorities and can change with incoming governments. Following the most recent White Paper concerning the NHS, *Equity and excellence: Liberating the NHS* (DH 2010), structure is due to change again significantly by 2012.

3.2.1.2 Politics and policy change over time

In line with the requirements of the 'conversational map', I provide an overview of the politics and policy of the NHS, in the format of the three levels of descriptors outlined in the model of paradigm change for SD provided by Sterling (2003) and described in more detail in Chapter 2. These are values (ethos), strategy (eidos), and practice (praxis). This reveals a very generalised pattern of how the NHS has changed since its establishment in 1946; how at any particular point in time, certain ideas dominate its landscape and how resources and structural patterns follow these. An appreciation and indeed a capacity to navigate political landscape is therefore relevant to progressing ambitions for SD.

To obtain an overview of political change influencing the NHS, the accounts of Ham (2009) and Klein (2006) are principle sources. Both regularly update their versions of process change in the NHS, Klein focusing on the politics of the process and Ham linking such politics to the manifestation of particular policies and practices within the NHS. Both take a historical approach to documenting change over time, highlighting major political episodes for the NHS. Table 3.1 is my own attempt to simplify a wealth of their analytical work into the three broad categories of values, organization and management and activity, and it is here explained in some detail. Trends regarding values and organization and management are readily accessible from the commentary. Trends regarding activity are less detailed and I can only therefore provide general principles of activity, rather than much insight into actual working practices of those involved. The purpose of providing this overview is more to illustrate the potential for such factors to influence policy

initiatives such as SD, than to provide a comprehensive account of these trends. Key documents are used to provide evidence for the patterns shown and these are also included in the Table. In general the historical patterns to date can be linked to prevailing political initiatives for three very broad time periods since the NHS was established.

1948-1982

In the period between 1948 and 1982, the NHS was developed with the core values of socialism, providing access to free and standardised healthcare for all in response to the adhoc access to healthcare that much of UK society experienced before its establishment. Organization and management of a standardised and uniform service would be the responsibility of a centrally managed public bureaucracy whose activity principles would be uniformity and consolidation. These ambitions are documented in the Beveridge report for Government (Beveridge 1942), which preceded the establishment of the NHS and outlined the need for such a state-based service, largely to keep the public fit for work in the economy. Beveridge made ambitious statements with respect to the aims of a publically funded health service to ensure that:

> for every citizen there is available whatever medical treatment he requires, in whatever form he requires it, domiciliary or institutional, general, specialist or consultant, and will ensure also the provision of dental, ophthalmic and surgical applicances, nursing and midwifery and rehabilitation after accidents (p. 50).

His arguments were received positively by a Socialist government, as evidenced by the *NHS White Paper* (1944), and this core value, to provide as much healthcare as people require, free at the point of use, and funded from taxation, has remained largely intact ever since. The medical model of healthcare, around which the NHS was established, was based on delivery of healthcare interventions to treat illness within individuals. As Ham describes, a medically focused model of healthcare, focusing on hospital and medical services, has dominated during most of the twentieth century, because of advances in medicine and the power exerted by the medical profession to maintain this.

1982-1997

Ham (2009) describes how the incoming Conservative Government of 1979, began to dramatically reform the NHS, particularly from 1982. Whilst the values on which the NHS was founded were not explicitly changed, arguably they were challenged through a distinct change in attitudes to public funding. In this era of major economic pressures coupled with Conservative Party ideological disdain for bureaucratic government, the mantra of efficiency and value for money became important.

Time period	Core Values	Conceptual frameworks informing strategy	Principles guiding practice	Key NHS Documents, legislation
1948 - 1982	Free at point of use Public service Medical Model of health	Development of centrally managed public bureaucracy Little accountability.	Consolidation Uniformity of provision	Beveridge Report 1942, 1944 NHS White Paper, 1946 NHS Act
1982 – 1997	Free at point of use Public service Medical Model of health	Business-like management (the New Public Management) Internal Market splitting functions into Purchasers & Providers New measures to increase accountability.	Efficiency Value for Money	The Griffiths Report 1983 White Paper 1989 'Working for Patients' Patients Charter 1990 (rights & standards)
1997 onwards 'Third Way'	Free at point of use Public & privately serviced Challenges to the Medical Model from Public Health Models	Maintenance and extension of internal market renaming as commissioning and providing. Market managed by enhancing patient capacity for health responsibility & choice Increased attempts at national standardization of resources through targets and subsequently, through regulation	Public Choice Public Citizenship & responsibility NHS Accountability NHS local responsiveness & priority setting	The New NHS, 1997 The NHS Plan, 2000. Shifting the Balance of Power, 2001 Choosing Health, 2004 Tackling Health Inequalities, 2003

Table 3.1 My own summary of a changing NHS (drawing on accounts of Ham 2009 and Klein 2006)

The Griffiths Report (Griffiths 1983) successfully championed the need for less Government-led bureaucracy, and explicitly hailed a new model of organization and management based on the business style models of the private sector. In response, the White Paper *Working for Patients* (Department of Health 1989) introduced an internal market as a governance tool whereby some parts of the service became purchasers, and some parts became providers in order to instil competition as a route to efficiency and responsiveness to public demand. New measures of accountability were also brought in as a critique of the period gone before. With the introduction of market factors, the

management strategy of the NHS no longer focused on centralised control, but neither was it left entirely to market forces. It was not politically acceptable for hospitals to go bankrupt and close, so some level of Government control was maintained. So began the paradox between the demand for responsiveness to local need, coupled with a desire to maintain control from the top and provide uniformity of quality throughout. People working within the NHS had to work to the principles of value for money and efficiency, and illustrate how they achieved the centrally organised targets which had been introduced.

1997-2010

When New Labour came to office in 1997, another era of change began. Termed the 'Third Way', the incoming Prime Minister Blair championed a new politics for UK society declaring a break from both the bureaucratic state-led public services dominant up to the late 1970s, and a break from Conservative faith in market-led public services of the 80s and early 90s. For the NHS, this meant a reinforcement of the founding values of the NHS as a state funded provider of healthcare services through unprecedented levels of funding. However, the organization and management was hailed as distinctly different to that of the original model. Increases in funding were coupled with an extension of the internal market structures (now termed commissioning) and the devolution of responsibility for allocating spend to local Trusts. *The New NHS* (Department of Health 1997), *The NHS Plan* (Department of Health 2001) and *Shifting the Balance of Power* (Department of Health 2001) are illustrative of this era. An increase in centralised performance management and targets added to this version of the paradox of devolved versus centralised control. The expectations of all those involved were high. Devolved spend meant that the Government expected local managers to make resource allocations appropriate to local need, whilst proving that they were achieving nationally agreed standards for service.

In the later years of the Labour administration, there have been signs of some challenge to founding values, notably the model of healthcare provision which underpins NHS purpose. Whilst the medical model continues to exert most influence, there is also evidence that alternative models are being explored. Ham describes increasing interest in models of health which recognise social, environmental and economic determinants, since the Blair Government took office in 1997. This Government commissioned *An Independent Report into Inequalities and Health,* (Acheson 1998), to renew policy in this area, and issued the White Paper *Tackling Inequalities, A Programme for Action* (DH 2003) to tackle the health

gap between different socio-economic groups. The case for this renewed interest was also strengthened following the publication of *Securing Our Future Health* (Wanless 2002) which urged the Government to take health promotion seriously as a means to control NHS expenditure and enable the long-term viability of a health service, free at the point of use. To achieve this, it argued that major public health concerns such as obesity and smoking needed to be tackled, and that the NHS had a role in tackling these, alongside the need for individuals to take responsibility. The White Paper, *Choosing Health* (Department of Health 2004) outlined a partnership relationship, of strong state support and a health promoting NHS, coupled with the need for engaged and responsible citizens. Such an interest in these determinants of health has remained to date, at least until the change of Government in 2010.

3.2.1.3 Recurring tensions and debates

In summary then, this analysis of a changing NHS shows a long period between its establishment in 1948 and 1997 when core values focusing on treating illness of individuals, and providing for all their physical health needs, remained largely unchallenged. The strategies of organising and managing to achieve this have however, changed dramatically from a centralised bureaucracy to a regulated internal market. From 1997, some challenges to the medical model are apparent, which recognise the significance of the social and economic, and to some extent environmental, determinants of health. Strategy though still emphasises health treatment delivery but with some additional resources targeted towards tackling health inequalities via cross agency working. As the Political climate changed again in 2010, the implications of significant cuts to NHS organizational budgets, and another organizational reform, remain unknown.

To summarise the recurring tensions evident within the history of the NHS, I identify two very prevalent debates, and one which has existed with less attention. The two prevalent debates concern the weight of emphasis placed on state or private provision of services, including the notion of competition within this, and weight of emphasis placed on the desire for uniformity of provision or local responsiveness. A less prevalent debate has concerned the weight of emphasis placed on service delivery or public health, and the reviews of Ham (*op cit*) and Klein (*op cit*) both conclude that this has leaned heavily towards service delivery.

2010 and beyond?

Now, in 2010, major reform is again underway as a result of an incoming Conservative-Liberal Democrat Coalition, allocating less state funding and hoping to compensate for this

through a reduction of bureaucratic layers, most notably the abolition of Primary Care Trusts and Strategic Health Authorities, and their current role in managing and monitoring service priorities. A '*Big Society*' model of a reduced state and an increasingly active role for citizens, private and Non-Governmental Organizations, to contribute to social welfare, is being championed (Prime Minister's Office 2011). At the time of writing, there is much uncertainty about the detail of these proposed changes.

3.2.2 An overview of the NHS Sustainable Development agenda: policies and priorities

The overview I provide on the NHS SD agenda (including reference to the broader public sector) utilises documents created prior to a change of government administration in May 2010[1]. At the time of writing, many of the policies and structures relevant to SD in UK public policy have been, or are due to be, abolished (e.g. Regional Development Agencies, the Sustainable Development Commission). This review however, concentrates on the political landscape prior to these changes for two reasons. First, these are the structures and policies in place during the time of the empirical work for this thesis. Second, subsequent direction remains uncertain and it is not clear how or whether such policies and structures will be replaced. A reflection on the implications of this change of administration, for the proposals and arguments put forward in this thesis, is provided at appropriate points throughout, as well as in the thesis conclusions drawn in Chapter 9.

3.2.2.1 Sustainable Development policy in the UK Public Sector

In order to understand the nature of policy for SD in the NHS, it is necessary to understand the broader public policy context in which this arises. In order to understand the **purpose** of public policy for SD, two key priority areas of UK SD policy, affecting all UK countries, are apparent which help to reveal these. The first concerns the need to meet the requirements of the legally binding *Climate Change Act* 2008. This commits the UK to achieving an 80% reduction in emissions of climate change related gases expressed as Carbon Dioxide equivalents (CO_2e), by 2050 based on a 1990 baseline. An associated *UK Low Carbon Transition Pla*n has been developed by the Department for Energy and Climate Change (DECC 2008). Government Departments are expected to contribute to this as illustrated by the climate change related targets in the '*Sustainable Development in Government (SDiG) Framework*' (DEFRA 2010), and as is shown below in relation to the

[1] In May 2010, a coalition Government (Conservative-Liberal Democrat) came to power in the UK to replace 13 years of Labour administration. Since this time, many significant policy and resource changes have been made which influence structures and policies related to SD across the public sector, including the NHS.

NHS, whilst the wider public sector is not directly covered by the SDiG, specific strategies for CO_2e reductions also exist for all public policy areas. This strand is relatively straightforward in that the emphasis is on compliance with UK legislation.

The second priority area is the much broader agenda of SD of which the first is just a part. As outlined in the UK SD Strategy, *Securing the Future* (DEFRA 2005), SD policy is based on the five inter-related principles of 'Living within Environmental Limits', 'Ensuring a Strong, Healthy and Just Society', 'Achieving a Sustainable Economy', 'Promoting Good Governance' and 'Using Sound Science Responsibly'(p. 16). The Strategy outlines the Government's vision for a sustainable UK society, and the role of different sectors in progressing this. Whilst the Strategy describes how 'responsibility rests with everyone' (p.152), it specifies a proactive role for all government departments and the public sector in driving this agenda for which many reasons are cited. These include first, the scale of influence that the public sector has, often illustrated with reference to its procurement of goods and services, estimated at £150b/year (Forum for the Future 2007 p.9). Second, the pervasive influence of its policy agendas on areas linked to the SD agenda e.g. health and broader welfare, community planning, transport, education. Third, the need for Government and the public sector to lead by good example. Therefore the values behind broader SD are complex, relating to the level and nature of responsibility to wider society, and the potential to influence positive societal change.

A review of the SD Strategy, particularly Chapter 7 entitled *Ensuring it happens* (pp 152-183), helps to reveal how these priority areas are expected to be addressed via a particular approach to the **strategy** for SD across the public sector. This can be summarised as nationally agreed targets, supporting skills development, distributed delivery, assessment and review. Nationally agreed targets in the form of 68 SD indicators are allocated across each level of Government (national, regional, local and to some extent, international), associated delivery strategies for each level of Government are identified (e.g. Government Department Action Plans for SD), skills provision is made at each level (e.g. the Academy for Sustainable Communities aims to enable local Government to use their powers to contribute effectively), and a monitoring body (the Sustainable Development Commission) was established to evaluate and report progress.

In general then, strategy is one where existing national, regional and local government structures must work to translate these very generalised and broad indicators into something relevant to their existing work plans. The nature of many of these indicators necessitates collaborative working across Government Departments, and between

different organizations. For example Indicator no.55 (DEFRA 2005 p.174) is the number of trips per person per mode of travel, with an ambition to increase ratio of sustainable forms such as walking and cycling. To do this requires efforts from the Department for Transport in partnership with others, such as the Department for Education and Skills which can support the development of school travel plans. Indicator 59 (p.174) is 'social justice' with an ambition to improve equality of health across social classifications, with an emphasis on health, education, crime and housing in deprived areas. The Departments of Health, Education and Skills, Communities and Local Government as well as the Home Office, would each have to contribute to this goal. In the Sustainable Development Commission's (SDC's) first review of these Action Plans (SDC 2008), the general indication is that this approach to organization and management has so far had limited success. Departments, as the first stage in the hierarchy and the level responsible for directing other levels, do not have the organizational systems in place for prioritising, monitoring and reporting on SD, so crucial for fully embedding these ambitions in their areas of influence. Importantly, this is attributed at least in part to a failure to understand their role in contributing to what are, as described above, complex ambitions for SD.

At the level of **practice**, little information is available with which to review how people actually tackle these work areas in their daily jobs, however, the nature of the agenda in the form of target setting, and allocation to Departments and organizations to translate to local delivery, does imply particular activities for those involved. As described above, it would appear that partnership and co-operative working would be necessary to achieve many of these. Along with these co-operative styles of working, the need to link national priorities to local context would imply that creativity and innovation are also important.

The NHS SD agenda sits within this wider public sector context. The Strategies outlined above apply to all parts of the UK but implementation differs between England and the devolved administrations of Northern Ireland, Scotland and Wales. This study arises in an English context and is therefore primarily concerned with the pathways for SD which arise in the NHS in England. However throughout this thesis, NHS organizations from other UK countries are also discussed where it is felt that the point being made is applicable, but any relevant distinctions between contexts are highlighted accordingly.

3.2.2.2 Priorities and 'purpose' in NHS Sustainable Development

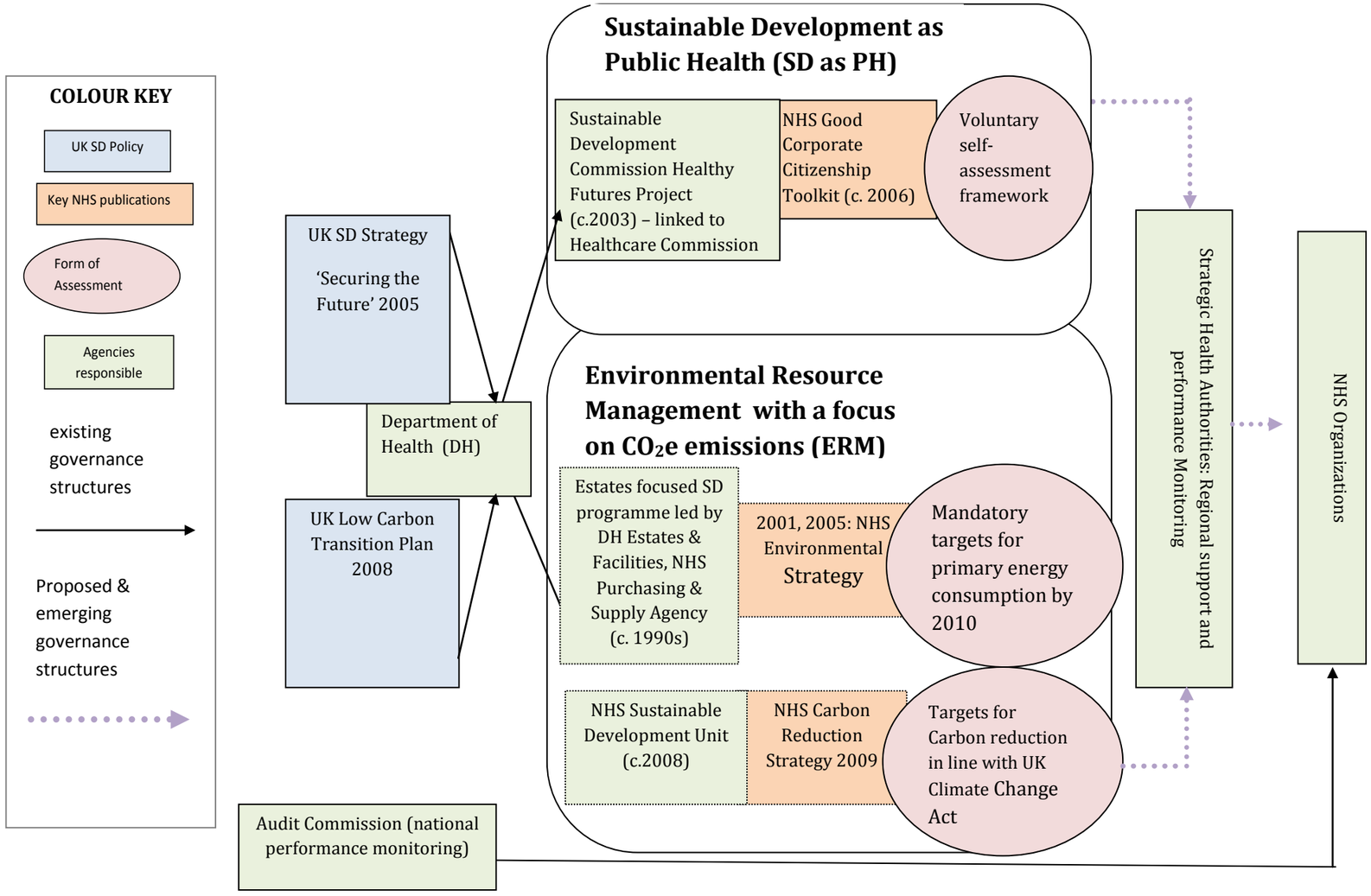
The two priority areas for public sector SD introduced above are translated by the Department of Health into two distinct priority areas for the NHS. I provide my own summary of this process in Figure 3.1 along with its accompanying text. This shows the

areas of UK SD policy which have been translated into action areas for specific NHS-related organizations, along with the strategy documents these organizations have produced in response. The diagram indicates the identification of two priority areas (purposes) within the NHS SD response. The diagram also indicates the format for accountability which exists (if it does) for each of these. In the accompanying text, I aim to make the case that the two priority areas, described in terms of the values, strategy, and practices which they invoke, are very different, hence they are likely to challenge a dominant NHS paradigm in different ways.

Corresponding to the UK climate change commitments, I term the first priority area for the NHS, 'Environmental Resource Management, with a focus on reduction of CO_2e emissions'. From here-on, this is abbreviated to '**ERM**'. The need to consider environmental management within the NHS Estate was the first element of this agenda. Since the late 1990s, this was led from the Estates and Facilities Management function of the Department of Health (DH) which was, at the time of establishment, a separate Executive Agency. The *Environmental Strategy for the NHS* was first produced in 2002 and updated in 2005 (NHS Estates 2005). This strategy, together with an accompanying guidance document *Sustainable Development in the NHS*, (NHS Estates 2001), discussed the need to manage energy, water, waste, transport and procurement issues relating to the Estate, with respect to environmental, social and economic impact. A target for a 10% reduction of primary energy consumption (buildings) between 2000 and 2010, was placed on NHS organizations. Whilst this was largely aimed at Estates Managers, there was some reference to the potential health benefits of addressing these issues, and therefore some implication that other parts of the NHS, which focused on more clinical concerns, should also take an interest.

Whilst guidance for best practice resource use, and in particular guidance on compliance with environmental legislation, is still produced by the DH Estates and Facilities Management Division, responsibility for guiding the NHS in its reduction of CO_2e emissions is now the role of the NHS Sustainable Development Unit (SDU) which was established in 2008. In response to the *Climate Change Act* 2008 which places a legal requirement on the UK government to achieve an 80% reduction in CO_2e emissions, the SDU produced an NHS Carbon Reduction Strategy (SDU 2009). The implications of this UK commitment for the NHS is summarised by Figure 3.2, taken from this Strategy.

Figure 3.1 My overview of the NHS Sustainable Development agenda - origins and current format



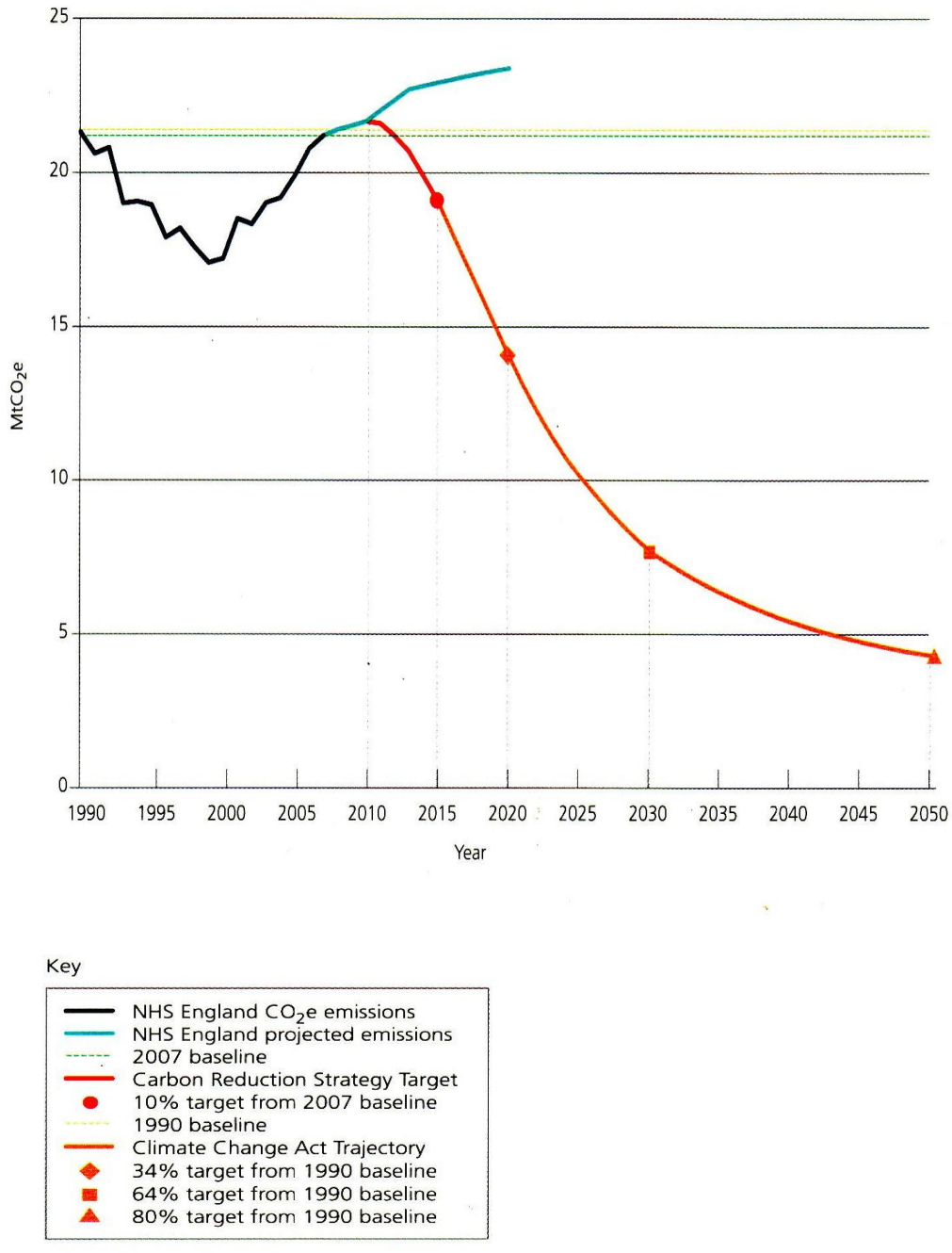


Figure 3.2 NHS England CO_2e emissions from 1990 to 2020 with Climate Change targets (SDU 2009 p.9)

Figure 3.2 shows the reversal in the upward trend of NHS CO_2e ($MtCO_2e$) emissions necessary to align the organization to the Climate Change Act Trajectory, and states the requirement of a 10% reduction target for the NHS by 2015, based on 2007 levels, followed by additional milestones for the years up to 2050. Such a reversal in trend is clearly a significant challenge. To understand this in more detail, the Strategy includes results of a carbon footprint analysis of the NHS to reveal the sources of these emissions. Figures 3.3 and 3.4, taken from the Strategy, show this breakdown.

Travel:	3.41 $MtCO_2$	(18%)
Building energy:	4.14 $MtCO_2$	(22%)
Procurement:	11.07 $MtCO_2$	(60%)

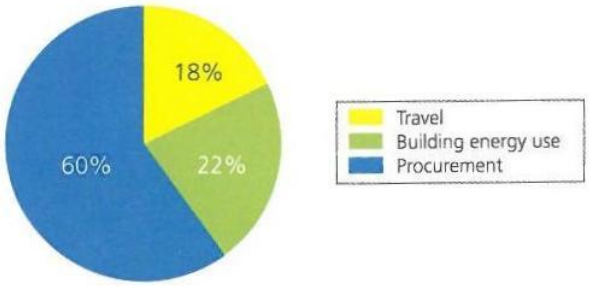


Figure 3.3 A breakdown of the source of total NHS CO_2e emissions (SDU 2009 p.30)

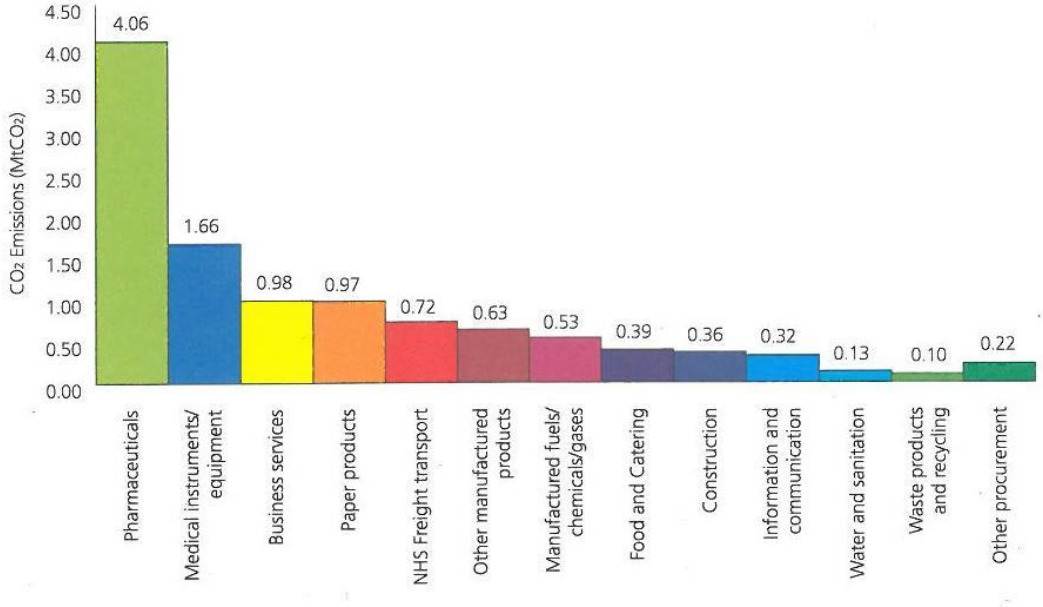


Figure 3.4 A breakdown of CO_2e emissions from NHS procurement (SDU 2009 p.31)

By revealing that 60% of emissions are attributable to procurement activity (the goods and services which the NHS buys), the agenda broadens from its original focus on buildings which account for 22%. In turn, the analysis attributes 60% of procurement emissions to pharmaceutical products illustrating the need to engage core parts of the organization in potentially controversial programmes of reduction.

Corresponding with the broader goals of UK SD strategy which aims to improve the social, economic and environmental factors impacting on people's lives, I term the second priority area for the NHS, 'Sustainable Development as Public Health' abbreviated to '**SD as PH**'. Evidence for this priority exists from 2003 onwards, with the establishment of a

Healthy Futures Programme by the Sustainable Development Commission (SDC 2010). Funded by the DH, this programme signified an increasing interest in the potential health benefits of the SD agenda, and the weight that this added to the argument that the NHS should be actively addressing its SD credentials. This drew heavily on the influential concept of a 'virtuous circle' of NHS resources introduced by Coote (2002) to make the case for potential synergies between health improvement and SD.

As summarised in Figure 3.5, a virtuous circle of resources for the NHS means using scale of influence (e.g. pounds spent) to positively contribute to local economic, social and environmental conditions. In this model, these conditions are viewed as determinants of health so by positively impacting on these through its resource allocation the NHS can improve health, thereby leaving more resources available for further positive influence. It is a captivating argument, is cited widely, and the concept largely informs the tool to guide NHS organizations to become 'Good Corporate Citizens'. The *Good Corporate Citizenship online assessment* (SDC 2006) is a voluntary framework for organising a corporate-wide response to embracing SD. It includes guidance on the management of the Estate, but it also encourages the NHS to develop its understanding of SD in much broader terms than environmental impact. It asks the NHS to consider its influence on social, and economic conditions via its relationships with its communities, its suppliers, and the way it develops the human resources of its workforce. 'SD as PH' continues to be advocated forming part of a broader government agenda for reducing health inequalities. For example, the *Marmot Review* (2010) draws attention to a complex array of social, economic and environmental determinants of health and the role of policy areas, including healthcare management, in potentially influencing these determinants. The Review urges the NHS, alongside other organizations, to begin to see itself as an important element of a whole-community approach to improving health, as opposed to just treating disease, and through involvement of the SDC in this review, the synergies with an SD agenda have been strongly advocated.

SD as PH holds particular values regarding the nature of health and the processes which contribute to it. As promoted by the World Health Organization (WHO), the linking of the concepts and principles of SD with those of Public Health requires a very broad interpretation of health (WHO 1997). They define health as 'a state of complete physical, mental and social wellbeing and not merely the absence of disease and infirmity' (p. 10).

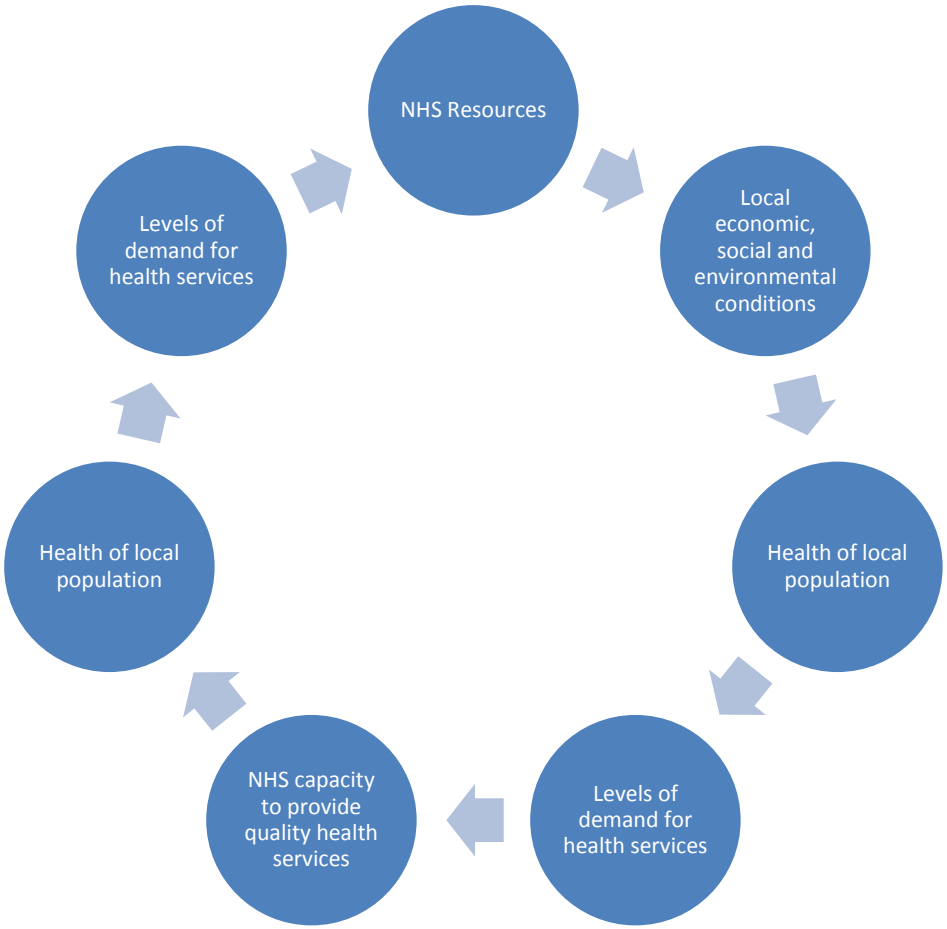


Figure 3.5 A 'Virtuous Circle' of NHS resources (Coote, 2002 p. 2)

Here, human health is determined by social, economic and environmental factors but the relationship is reciprocal. Such factors determine health, but our ability to manage human impacts on social, economic and environmental systems also determines the state of these factors. In short then, SD as PH requires a belief in relationships and reciprocity and is theoretically supported by models which depict these relationships. One such particularly influential model is that of Whitehead and Dahlgren (1991), which was published in The Lancet, and outlined the relationships existing between health and the physical, social and economic environment. I include a recent interpretation of this by Barton and Grant (2006) termed a *Health Map for the Local Human Habitat* in Figure 3.6.

The Health Map model, along with Whitehead and Dahlgren's model which preceded it, advocates that there are levels of influence on the experience of individuals and that the relationships which exist between the levels are reciprocal. So, moving out from an individual, are levels of systems, comprising lifestyle, community, local economy, activities, built environment, natural environment and ultimately the global ecosystem.

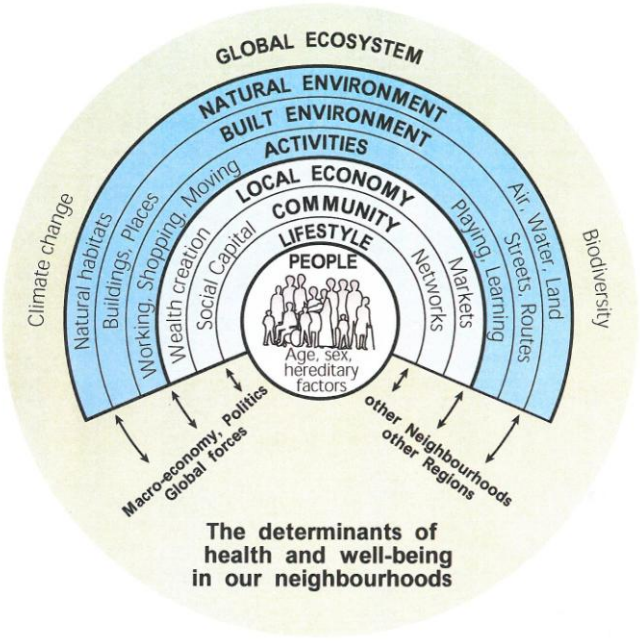


Figure 3.6 A 'Health Map for the Local Human Habitat' (Barton and Grant 2006)

As Barton and Grant (*op cit*) describe, this model consolidates earlier versions and is intended to engage all those who have influence in some form:

> It has been deliberately composed to provide a focus for collaboration across practitioner professions – such as planners, public health, service providers, ecologists, urban designers and across topics transport, air quality, community development, economic development (p.2)

As introduced below with respect to strategic approaches within the NHS SD agenda, various analytical and predictive models of intervention for PH stem from these values and principles and clearly have much to offer a strategy of SD as PH. Such a perspective on health receives prominent attention on the international stage, being described by Baum (2008) as the New Public Health, to indicate the increase in international policy, and subsequent initiatives, which are based on this notion of health.

3.2.2.3 'Strategic approaches' to NHS Sustainable Development

The priorities of these strategies and the organizations responsible for them, as depicted in Figure 3.1, reveals a difference in the nature of organization and management between the two priority areas. As discussed, ERM exists within a clear framework of targets, support and guidance. The Carbon Reduction Strategy outlines targets, the SDU provides some support, and the recent addition of the National Audit Commission indicators for natural resource use in the NHS (SDC 2009) aim to monitor and report on progress. However whilst the targets at least are clear, the reporting and assessment mechanisms

are less so. The Audit Commission's assessment of resource use in NHS organizations is in its infancy. In addition, a role for regional networking is tentatively proposed by the SDU within their Carbon Reduction Strategy:

> Sustainable Development Regional Networks in the NHS are (to be) developed further and given more prominence (SDU 2009 p.62)

Regional leads for NHS SD, often sitting within Strategic Health Authorities, are currently working to respond to this proposal but the format for any regional assessment and monitoring of progress in either area of concern is not specified. Indeed this regional level of governance is also highly vulnerable in periods of changing Government Administration.[2] In summary then, governance structures are currently weak and their future direction uncertain.

With respect to the second priority area, SD as PH, even the targets are not clear. The Good Corporate Citizenship Assessment is currently voluntary and rather than specifying specific performance targets, it is intended to be a learning aid for organizations to develop their strengths in this area and set their own priorities. These are not assessed by the Audit Commission. In effect, no performance management systems currently cater for progress in this area in any clear or direct way. However, whilst few structures currently exist to support SD as PH explicitly, the principles of SD as PH as outlined above do imply specific forms of strategy which, whilst there is no comprehensive agreement on these, are based on systems principles of intervention. Green and Raeburn (1988) summarise such approaches as the integration of a focus on individuals' lifestyles with that of system determinants, through the concepts of community and enabling. So, individuals do have agency within the communities they are part of, to shape these into healthy settings more supportive of all dimensions of human health.

Indeed the need to focus on the process of people living in their communities, as a route to improving health has been conceptualised within what is known as a 'settings' approach to health by the World Health Organization. Dooris (2004) describes how this concept has its roots within the Ottawa Charter for Health Promotion which has been extremely influential in the evolution of international PH policy. This describes health as being 'created and lived by people within the settings of their everyday life; where they learn, work, play and love' (WHO 1986 p. 3). Dooris goes on to describe how 'settings' approaches vary immensely but tend to exhibit a whole systems perspective comprising

[2] Plans for the dismantling of regional governance, including Strategic Health Authorities for the NHS, have been confirmed in the NHS White Paper '*Liberating the NHS*' (DH 2010).

appreciation of the big picture, of relationships and of influence. Dooris (2006) suggests that the systems concepts on which the 'settings' approach is grounded, may have relevance to the NHS as it attempts to conceptualise its role in SD.

Whilst not explicitly stated within the policy and guidance for the NHS on its SD agenda, such 'settings' approaches do seem to be implied by the policy and guidance. The virtuous circle is repeatedly used to justify why an NHS organization should use its resources to proactively improve the social, ecological and economic status of the communities it serves, by promising improvements in the health of the population as a result. This argument only logically works if using such a reciprocal understanding of the relationship between individual health and the systems of which an individual is a part. The approaches advocated by the internationally accepted 'settings' approach, whilst still in their relative infancy, are theoretically consistent with this and therefore would appear to be appropriate concepts on which to ground organization and management for SD as PH. ERM on the other hand, does not necessarily require these principles of complexity, if all that is intended is a reduction in resource use to meet legislation and save on finances.

3.2.2.4 The 'practice' of NHS Sustainable Development

There is evidence of two clear aspects to the **activity** expected of those involved in responding to these policies and strategies. These are compliance and innovation, respectively. Each priority area exhibits one aspect more clearly. With respect to ERM, the rationale behind the development of regional networks for SD being promoted by the SDU appears to be to raise awareness and mobilise actions to institutionalise the systems required to meet very ambitious carbon reduction targets outlined in the Carbon Reduction Strategy (SDU 2009). People will need to be innovative to achieve this but the focus is not so much on creating solutions, as on responding to clear goals in a fast, efficient, and accountable way. With respect to SD as PH, because the goals themselves are much less clear, the emphasis is on innovation and the development of learning capacity required for this. As already noted, the Good Corporate Citizenship Assessment is intended to be used as a learning tool to build understanding within an organization. This learning activity would appear to involve learning about what is important, but also about what local structures and organizational patterns will support these goals. With little specifically written about what these should look like, it would seem that those involved have to think creatively, develop their own capacity and networks for tackling complex issues. Activities associated with compliance with the broad principles of the Good Corporate Citizenship Toolkit, are implied in a broad sense, and would appear to be a long-term aim but this is not the emphasis, as priorities within this extensive agenda need to be

locally established. The assertion that the SD agenda advocates both compliance and innovation is supported in the next section which reviews the experiences of those tasked with responding to this agenda, and includes my own experience, and some generalisations taken from reviews of the experiences of others.

In summary then, the two aspects of SD policy for the NHS which I identify are based on different notions of value, strategy, and practice. I am not aware that the distinction between these two aspects is formally made; NHS SD tends to be discussed as one coherent agenda. However, I propose that it is possible to begin to understand the different challenges being experienced by those NHS staff tasked with responding to them. Making the distinction is the first contribution of this thesis, summarised by Figure 3.1. I now summarise what is currently known about the challenges faced in progressing NHS SD in practice and the attempts which have been made to date, in order to theoretically understand and progress these.

3.3 Descriptive studies of the challenges

It is possible to identify descriptions of three broad challenges from a review of progress towards NHS SD to date. First is the challenge of achieving organizational support. Separate studies refer to the problems caused by a lack of incentives for staff to engage in this agenda. Griffiths (2006) describes how a lack of corporate vision from the DH leads to low levels of awareness and acceptance of SD amongst managers. Jochelson et al (2004) refer to a need for explicit targets to move SD from the sidelines of an organization, describing how issues related to SD are not viewed as being related to core medical work, for which a strong structure of performance management targets does exist. Since these studies were made, stronger targets and supporting audit procedures have been developed for the priority area of ERM but their effectiveness has yet to be assessed. Such performance management is still lacking for the second priority area of SD as PH.

Second is the challenge of understanding and explaining the benefits to be gained from particular SD initiatives. The benefits of ERM can be explained as long as financial gains or compliance could be predicted, but SD as PH is much more difficult. Jochelson et al (*ibid*) report this as a business case problem i.e. there is a difficulty with providing the evidence for such initiatives having positive environmental, social and economic impacts. That the measurement of such impacts is an area requiring further study is illustrated by Douglas (2004) who report on an innovative study into social and economic impacts of a prospective major redevelopment of health services in Salford, UK. Douglas introduces the method used here as an adaptation of a Health Impact Assessment framework (HIA),

where qualitative judgements about the potential impact on a range or social and economic health determinants were assessed. To reach these judgements involved a major undertaking with participation from stakeholders across the community. Further research is required before any conclusions can be drawn about the transferability of such an approach to daily NHS activity, or indeed to service re-developments in other areas, but it does paint a valuable picture of the depth and complexity of data needed to understand influence on SD.

Finally, there has been some commentary on the need to develop a particular way of working, involving partnerships, collaborations and networks, for the efforts towards SD to be facilitated. The study by Griffiths (*op cit*) highlights the benefits that could be had if SD was seen, not solely as the function of those traditionally responsible for managing the Estate, but also of relevance to those responsible for public health. Griffiths cites studies into the links between health and both the natural and built environment, as evidence of the potential for joined up thinking and collaboration between these two currently separate groups of staff. In a discussion of the factors contributing to award-winning waste minimization success in four NHS organizations in England and Wales, Tudor et al (2008) build on earlier work related to the Cornwall case (Tudor et al 2004), to describe how relationships with key stakeholders are important. Relationships are shown to be important within the NHS and with external parties. For example, internal relations between waste and procurement managers are crucial if the waste implications of any product are considered before purchase, and relations with external partners such as waste collection agencies and the recycling industry are crucial if opportunities for recycling and re-use are to be explored.

3.4 Theoretical framing of the challenges

There has been some attempt to theoretically frame the challenges of progressing SD in the NHS, and it is to this area that I seek to contribute through the contextual inquiry. Amongst these theoretical frames, I identify three different foci of attention depending on their perspective. I outline these here, before outlining how this research intends to contribute to their development.

The first is a framing by those within the public health community who are not, primarily, concerned with the NHS, but with a socio-ecological system of health in which they see the NHS as an influential organization, and therefore have begun to define a role, and to a lesser extent, some strategy for achieving this. Dooris (2004; 2006) provides an overview of this framing and how it relates to the concept of 'healthy settings' as developed and

promoted by the World Health Organization. He describes how such an approach is grounded in a complex systems understanding of health as an emergent property of social, economic and environmental systems and therefore requires a specific form of decision-making and monitoring of success which places the health of the whole system as central. Barton and Grant (2010) have also built on their Health Map for the Local Human Habitat (Barton and Grant 2006) to describe settings approaches and their role in planning for sustainability via a whole-system perspective, but have not concentrated on defining a role for the NHS within this. However, Dooris (2007) does explicitly relate this to the NHS SD agenda, suggesting how the NHS can be strategic in its interventions for the whole, by applying the concept of 'corporate citizenship' to help view organizational purpose as including the need to contribute to social and environmental conditions. This begins to add some theoretical weight to the propositions outlined in the NHS Good Corporate Citizenship Toolkit (SDC 2006) introduced above, by describing corporate citizenship for the NHS as developing relationships with its stakeholders in order to establish shared purpose for aspects of community well-being. Dooris (*ibid*) also provides some analysis about the extent to which such a strategy can be supported in the NHS. He concludes that it is not clearly supported by national policy, but that in certain areas, including the North West of England, there has been some progress, where a role for the NHS as an inward investor contributing to social and economic development has become well-established. He notes that this activity is supported by regional economic and health agencies working closely together, but also acknowledges that this definition of corporate citizenship is not comprehensive in its coverage of issues of SD. There is currently no role defined for contributing to health and sustainability at a global level, but it is limited to more parochial concerns of regional development.

The second perspective is related to this but, rather than originating from a PH perspective of broad social and ecological health of the community, and how the NHS can contribute to this, it takes its starting point from inside the NHS, and attempts to define what corporate citizenship strategy should entail. Tudor et al (2008) provides an example of this perspective, developing theory on the components of corporate social responsibility through the lens of waste and resource use of the NHS. This study concludes that a 'Corporate Social Responsibility' (CSR) approach should be holistic, involve stakeholders and consider increasing the involvement of staff from levels normally associated with management of resources, and speculates on innovative forms of relationships with the community which could support this, such as social enterprises.

Finally, I identify a theory for NHS SD grounded in organizational learning. Mittleton-Kelly (2011) use theories of complexity in management, to propose the need to focus as much on establishing processes for adaptation to change, as on outcomes, within strategy for SD. They discuss the need to support 'enabling environments' for this purpose, where learning and participation are fostered. However, they urge caution in the extent to which enabling environments can effect change within a hierarchical organization, without leadership and commitment from senior levels to address organizational culture.

These theoretical propositions each have something to offer in terms of understanding the challenges outlined above. First, they support an understanding of SD as PH as a critique of dominant organizational priority, seeking to raise the importance of an NHS role in contributing to the health of the wider community, in broad terms, not just through health treatment. This review indicates that commitment and understanding of what this may mean is poorly developed, along with the strategies for doing it. The study by Tudor et al (2008) proposes that internal ERM could also be perceived through the corporate citizenship agenda, so that the process by which waste and resources are managed can also be organized to achieve broader social goals, as well as potential cost savings and compliance with legislation which serve the internal needs of the NHS. Whilst these conceptualisations of the role and strategy of the NHS in terms of maximising its positive influence on health in its broadest sense, are clearly useful in beginning to define what it is that NHS SD may mean, they do not pay great attention to the processes by which these strategies could be advanced. The observation by Dooris (2007) that these are most established where there is broader agreement, in the form of regional partnerships, for such a role for the NHS, suggests that success depends not only on the NHS itself but on context. The paper by Mittleton-Kelly (*op cit*) on complexity and learning does pay attention to process, also inferring the importance of context by introducing the idea of 'enabling environments' as a strategy to help people respond to contextual changes, whilst urging caution in how much can be achieved if the organization is not supportive.

As described in Chapter 2, this thesis takes a particular perspective on what it seeks to contribute. From this perspective then, the gap I wish to address is one which helps articulate the differences between what is being proposed in theories such as corporate citizenship for the NHS, and the current organizational priorities and strategies which dominate, with a view to integrating this understanding into strategies designed to address these differences in context. What I propose this contributes to these emerging theories then, is the linking of proposals for an NHS role in SD (as articulated mainly by the PH community to date) with an understanding of processes by which organizational

assumptions can be revised. As described in Chapter 2, I take a learning perspective on this, in line with Mittleton-Kelly (*op cit*) therefore and I am also concerned with developing the notion of enabling environments. The approach I outline in Chapter 4 holds potential for addressing the problem of hierarchical constraints to learning progress which Mittleton-Kelly (*op cit*) identified.

3.5 Context-level research objectives

Develop a theoretical understanding of NHS SD through a framework which can guide:

- definition of different interpretations of NHS SD
- an understanding of the challenges and opportunities experienced in their enactment
- an Action Research approach to strategy for progressing SD in the NHS

Figure 3.7 Context-level research objectives

4 A theoretical framework linking both levels of inquiry

4.1 Introduction

In this Chapter I propose a framework which is informed at the meta-level by the perspective on learning and organizational SD and proposed contributions to these, which I outlined in Chapter 2. In the first part of this Chapter I explain the individual components of the proposed framework, before this is summarised in Figure 4.5. In the second part of the Chapter, I then contextualise the framework for the NHS using the literature review provided in Chapter 3. Finally I provide a summary of the dual-level research objectives regarding this framework which are explored in the empirical stage of this thesis.

4.2 Building a framework of Action Research for Organizational Sustainable Development

In Chapter 2 I described how the notion of Action Research (AR) as supporting 'relational activity' (Reason et al 2009) for Sustainable Development (SD) is useful for broadly understanding the ambition for developing alternative organizational assumptions to those which dominate, through engagement in dialogue by a wide variety of stakeholders. I proposed that the model offered by Ballard (2005) is a useful outline of what this encompasses, outlining the need to foster awareness, agency and association in order to progress SD, specifically the integration of all of these conditions. I described how Bradbury (2006) offers the concept of 'promoting conversations for SD' to further articulate this activity in relation to what it may mean for the intentions to build action-oriented theory in AR. In this concept, activity to progress SD is viewed as giving voice to currently marginalised theories about the organization and SD, as well as understanding the voices which currently dominate, as a necessary first stage before change can be effected. I suggested that these conceptualisations could be advanced by explicitly linking them up; so to view the process of relational activity as the promotion of conversations for SD. I suggested also that they could then be strengthened in two ways: first making an explicit link to a compatible concept of organizational change process, and second, developing the notion of conversations for SD using Sterling's model of paradigm change to map the potential content of these conversations. This 'conversational map' could then serve the Action Researcher as an 'integrative' tool to aid the linking of awareness and association within a learning process suitable for organizations. The framework provided in Figure 4.5 reflects these propositions and is described in stages.

4.2.1 The 'conversational map'

The 'conversational map' is the centre of the framework and provides a guide to the nature of the paradigm tensions likely to exist. This map is shown in Figure 4.1, and is a summary of the explanations given for Sterling's model of paradigm change for SD, provided in Chapter 2.

'conversational map' of Organizational Paradigm Change for SD			
Domains	**Dominant**	**Emerging**	**Learning Level**
Purpose	Objectivity	Participation	3 (treble)
Strategy	Disconnection	Connection	2 (double)
Practice	Manipulation	Transformation	1 (single)

Figure 4.1 A 'conversational map' of organizational paradigm change for Sustainable Development (my version).

These tensions are expressed as contrasts in the paradigm domains of organizations i.e. purpose, strategy and practice, and are linked to the organizational levels 3 (treble), 2 (double), 1 (single), respectively. It indicates that the dominant organizational paradigm is likely to exhibit a purpose informed by the perception of itself as an objective entity within its broader context, that its strategic models are likely to be based on breaking the organization down to individual parts with discrete roles, and that the practices it supports are likely to be, in the main, manipulative of external resources. The map indicates that proposals for SD are likely to include, at least to some extent, a proposal to revise purpose through a revised perception of the organization as fundamentally connected to its broader context, that strategic models necessary to work to support this perception are built on making connections between parts of the organization and actors outside, and that principles of daily practice should be based on a commitment to transform the external context for the better. The linking of these tensions to organizational learning levels provides a guide to the nature of learning necessary to revise the dominant paradigm, with higher levels seen as harder to shift than lower. E.g. it should be easier to develop practice to be more efficient within the confines of the dominant paradigm, than it should be to alter the strategy and purpose on which such practice is based. The 'conversational map' can be used by the Action Researcher within attempts to progress Ballard's notions of agency, awareness and association to achieve these higher levels of learning. I now describe its role within the existing Action Research frameworks I choose to support this learning process.

4.2.2 Agency

For Ballard (2005), the fostering of agency concerned the development of people to be able to act for change, and AR frameworks have a wealth of history in this regard, and specifically for the context of organizations. In the framework of AR for SD which I propose, I draw on two existing AR frameworks i.e. traditional Action Research for organizational change, and the principles of Co-operative Inquiry which together, I view as the supportive structures in which learning can take place. Both frameworks emphasise different aspects of the need to provide supportive structures in which learning can take place; the Action Research cycle provides a structure to link action to reflection in systematic cycles in order to address perceived challenges in organizations, and the Co-operative Inquiry framework provides insights, informed by the Participatory Research Paradigm (PRP), to develop practitioners as co-researchers within these cycles.

4.2.2.1 Traditional Action Research cycles for organizational change

In order to approach the need for agency, I propose the traditional AR cycles as a basic structure to engage and support a group in progressing SD in an organization, drawing specifically on the cyclic framework offered by Coghlan and Brannick (2005 p.22). This is influenced by the long history of AR in organizational change, built and developed from the much earlier work of Lewin (e.g. 1946). The cycle provided by Coghlan and Brannick (*op cit*) aims to incorporate Lewin's essential ideas of i) revising behaviour in action, ii) the need to address established patterns of thinking and acting, iii) developing supportive group process to enable people to engage in this critique of self and context, and finally iv) the need for systematic cycles of action and reflection to support these ambitions. It is these essential ideas which I believe make it suitable for framing the group learning process in general terms. Learning for change as viewed through the PRP requires the first three of these explicitly. AR through the PRP does not specify the nature of cycles of action and reflection necessary, but does demand that reflection on action is central. I believe the formal cycles are suited to engaging people from organizations who are used to working in quite formal ways. The format of the cycle of Coghlan and Brannick (*op cit*) was specifically presented for those who carry out AR in their own organizations, but I believe it helps to define the role of any researchers (including those like myself, who are external to the organization) in establishing the conditions for action and reflection to take place. This is shown in Figure 4.2.

The framework comprises four stages (Diagnosis, Planning action, Taking action, Evaluating action) as well as a pre-step (context and purpose). The pre-step is designed to enable the Action Research project to be understood as one which 'unfolds in real time'

(Coghlan and Brannick *ibid* p.21), so the context, including the external and internal influencing factors, and the aims of the project must be understood.

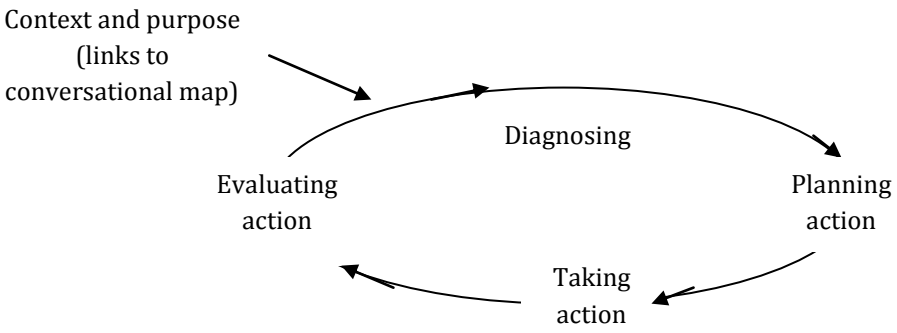


Figure 4.2 The Action Research cycle (from Coghlan and Brannick 2005 p. 22)

In Figure 4.2, I have indicated that this contextual understanding and the defining of purpose, is informed by the 'conversational map'. In the diagnosis, the specific issues of concern to a group must be identified, even if they are later changed, to enable real actions for change to be planned in the subsequent stage. In the planning stage, real-life changes are planned, for group members to enact in their real-world context, in the taking action stage. The evaluation stage involves reflecting on whether the diagnosis, the actions taken, and the manner in which they were taken, was correct or appropriate. An evaluation stage informs subsequent cycles of diagnosis, planning and action. The cycle therefore provides a way of planning group activity, and ensuring that both action and reflection stages take place. Whilst Coghlan and Brannick (*op cit*) clearly support the use of such an organizing framework, they also urge some caution in over-emphasising the necessity to follow cycles in a rigid manner, if this is at the expense of the quality of participation required for AR. This draws attention back to the need to commit to understanding choices made, which was discussed in relation to validity in AR, in section 2.2.6. The principles of participatory AR, as summarised by the five guiding ambitions indicated in Figure 2.3 (human flourishing, participation, knowledge-in-action, practical issues, emergence) are more important than strict adherence to any framework. This leads me to explain why I propose that the framework of Co-operative Inquiry, attributed to Heron and Reason (e.g. 2001), offers useful insights into how these cycles of action and reflection should be approached.

4.2.2.2 Supporting learning process through the principles of Co-operative Inquiry

Each framework emphasises a different aspect of the ambitions of AR. As Coghlan and Brannick (*op cit*) describe, the traditional cycle is geared towards problem solving in organizations. I propose that this emphasis is useful to some extent, in the context of

developing progress towards SD. As the literature review of SD in the NHS indicates, there are clearly problems involved in trying to enact the guidance and policy, and AR which explicitly aims to find ways to address these, would seem appropriate. Without this focus on generating solutions, or at least responses to such problems, AR is not going to meet the needs of practitioners. I also see this problem centred focus as compatible, to some extent, with the perspective of the Action Researcher working within the PRP. As described, the aim of research in this tradition is for analogous theory building; theories of purposive and timely action which can be enacted and reflected on in real-life situations. This is also, in its simplest form, about developing responses to challenges posed.

However, I have proposed a role of AR for SD, as critiquing a dominant organizational paradigm at its highest levels of purpose and strategy, and the development of alternatives more conducive to SD. This requires more than just attention to problem solving, which could imply just focusing on the problems which are evident in practice. An illustrative example of what I mean by this is a focus on efficiency of environmental resources, such as energy through technological improvements, without critiquing how the energy is sourced, or even more fundamentally, what the energy is used for. From the perspective of the PRP, critique at these higher levels, in any context, is an important part of the progress towards a participatory worldview. Co-operative Inquiry links directly to these ambitions through guidance on how to work towards the five principles of AR referred to above. Drawing on Heron and Reason 2001, the following participative aim can be summarised: it seeks to involve those who would normally be viewed as **research subjects as co-researchers**. With respect to practical issues, it is developing a means to respond to **real concerns** which become the focus. With respect to the methodological requirement to gain knowledge-in-action, there is a commitment to working with **many forms of representation** to enable a better appreciation of a context than that which can be gained through propositional theory alone. With respect to human flourishing, Co-operative Inquiry seeks to contribute to the **transformation of the co-researchers** themselves in their ability to perceive themselves and their relationship with the wider context, and flourish as active participants in their futures. With respect to emergence, Co-operative Inquiry places the **cycles of action and reflection** at the centre of an approach which seeks to pay attention and respond to changing conditions as they occur.

I use the Co-operative Inquiry framework therefore as a direct link from the ambitions of AR in the PRP to the design of learning process within cycles of organizational AR. It is designed to develop the group learning process for which the cycles of organizational AR provide a structure. I indicate on the diagram how the 'conversational map' can be used

to aid the critique which takes place in these cycles. It provides prompts for considering the nature of the challenges as tensions between the paradigms. It not only provides an overview of constraints, but helps articulate alternatives. As I now explain, I believe this adds an additional, yet extremely important element to Co-operative Inquiry, and addresses the criticism which has been directed at some forms of Action Research as being rooted too firmly in Critical Theory to enable solutions to be developed.

4.2.2.3 Adding vision to critique within Co-operative Inquiry processes for SD

As has been described in Chapter 2, the PRP is strongly influenced by Pragmatism and Critical Theory. The power of these frameworks is that they draw attention to the difficulties of acting with awareness of the frames which guide us, and to the fact that such frames are socially constructed and held in place by power interests; they draw attention to the need to question and critique. This is important for SD as seen from the perspective outlined in this thesis, as it helps to understand causes of seemingly intractable behaviour, which have received less attention than the focus on treating the symptoms of this behaviour evident in mainstream approaches to SD. Frameworks grounded in the PRP, of which Co-operative Inquiry is one, are designed to reveal these frames at their deepest levels, and to support people in developing alternatives, however this second more purposive part of the process has arguably received less attention to date. This is problematic in AR for SD, where the need to develop responses to urgent challenges is paramount. Such a critique has been expressed by Ludema et al (2001) with respect to AR in general, and particularly to AR in organizations:

> To the extent that Action Research maintains a problem-oriented view of the world it diminishes the capacity of researchers and practitioners to produce innovative theory capable of inspiring the imagination, commitment and passionate dialogue required for the consensual reordering of social conduct (p. 189).

In response to this observed need, these authors promote an alternative 'appreciative inquiry' which does not focus on an analysis of the problems, but instead on people's potential for something different, inquiring into enthusiastic examples of positive change, and incorporating methods specifically designed to enable people to dream and imagine alternatives. I am influenced by what these appreciative inquirers are trying to do, but I do not wish to throw 'the baby out with the bath water' and lose the critique altogether. Therefore I seek to integrate the need to look forward and articulate alternatives, with the need to understand and critique the dominant structures, interests and ideas which prevent progress. Indeed, there is evidence that such integration is what proponents of AR are seeking to do anyway; the principle of analogous theory building as an aim for AR, has after-all been described by Reason and Torbert (2001) who call for AR to aid a

comparison of a vision of what things should be like, with an understanding of what they are like. If this is difficult, then those engaged in AR for SD, which is explicit about the need to do both, need to propose ways to support the process. A key role of the 'conversational map' within the framework I propose is to do just that: to assist the Action Researcher in this integration by articulating both what challenges are likely to be posed to SD, as well as seeking to improve conceptualisation of what is required. The 'reflective' interviews of Roth and Bradbury (2008) are an account of a specific method in which this analogous theory building is attempted. They describe how interviews can be designed to be 'reflective' (p. 354), and seek to engage others in recognising a gap between the way they do things at present (their theories-in-use), and the way they would like things to be done in the future (espoused theories of SD), with a view to considering what needs to be done to bridge such gaps. If interviews can be designed to serve as reflective tools, I propose through this framework that any methods used within the reflective cycles could be designed with this purpose in mind, and I make this point by placing the term 'analogous theory building' in the cycle which I illustrate in Figure 4.3, which summarises these components which I propose for the cycles of group action and reflection.

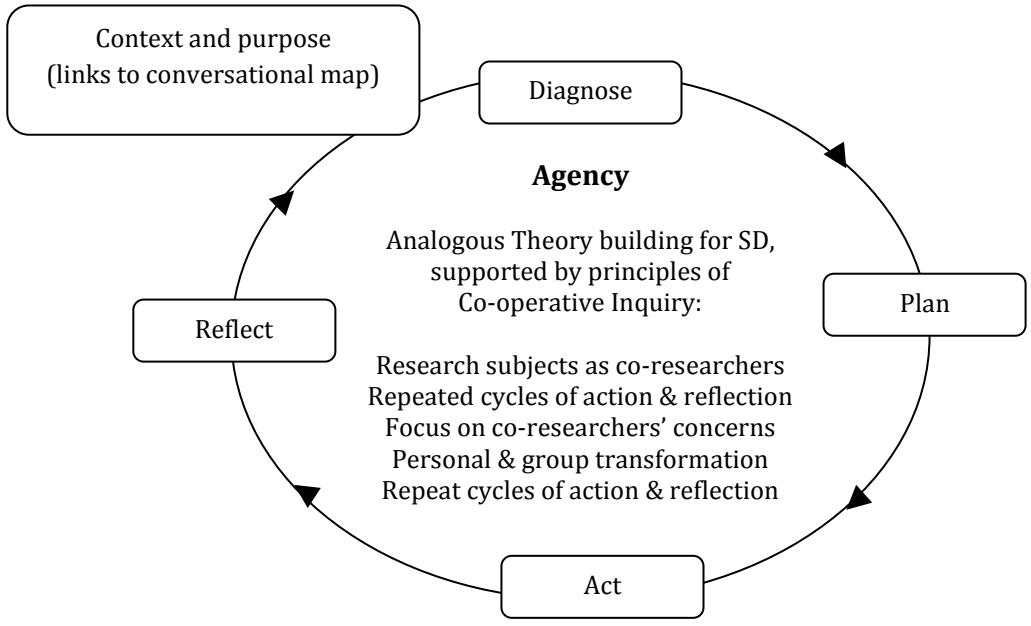


Figure 4.3 The proposed components of the Action Research cycle

4.2.3 Association

In Ballard's model of AR for SD (*op cit*), the fostering of association was included to reflect the need to build and mobilise networks to support individual AR initiatives. This requirement is well documented in AR, and would seem well suited to the challenges identified for SD in an organization such as the NHS. If challenges are seen as being a result of tensions at the level of purpose, strategy and practice, then a wide range of

people, ideas and techniques need to be engaged. With respect to the need to foster association, and the links to wider networks outside the immediate research project, there is at least recognition of the importance of this amongst Action Researchers, even if guidance for achieving this is limited. Gustavsen et al (2009) describe why this is so important, referring to the perspective of knowledge generation as contextually and experientially grounded, which informs Action Research. He uses this understanding to explain that it is not possible to provide ready-made theories from one context, for use in another;

> There is no direct diffusion via general theory from one or a few cases to many cases. To reach out in society, it is necessary to travel a far more complex road (p. 64).

As Reason (2003a) summarises with reference to Torbert (2006), this more complex road is one of developing critical reflection on action at different scales: at the scale of the 1st person (individual reflective practice), to the scale of the 2nd person (group interaction), to the scale of the 3rd person (political networks), so that as many actors within a system in which change is sought, become part of the conversation for change. In this perspective on AR, individual projects such as that which is established for this thesis within one NHS organization, should be viewed as part of a bigger, and ongoing process for change. The proposed role of the Action Researcher is therefore to help facilitate a dialogue outside, as well as inside, any initial inquiry group, or as Reason et al (2009) describe:

> The role of the academic is to facilitate the learning and reflection process, and to find ways of engaging wider communities of practice so the learning can be passed on (p.9).

By using the term 'communities of practice', Reason et al (*ibid*) provides a means of conceptualizing the links between members of an immediate group, with those outside. This term was introduced by Wenger (e.g. Wenger et al 2002) to indicate how people hold shared understandings which influence their actions, not only with their immediate peers, but with others in more remote communities. Communities of practice are defined as;

> groups of people who share a concern, a set of problems, or a passion about a topic and who deepen their knowledge and expertise in this area by interacting on an ongoing basis *(*Wenger et al *ibid* p. 4*).*

Once viewed in these terms, communities of practice can become a unit of inquiry, as 'the social containers of the competencies that make up such a (remote) system' (Wenger 2000 p. 229). So, there is an acceptance of the important influence membership of these remote communities has on the actions of those within any immediate AR group. As the quote from Reason et al (*op cit*) above indicates, there are also calls for Action Researchers to facilitate learning across this remote system. However, there is little guidance on how to

do this; a gap in understanding for which I propose a potential response below. Within this framework, it is proposed that the 'conversational map' can be used to help identify and guide Communities of Practice who work on specific aspects of a context and at different levels.

There is another aspect of association evident within broader AR literature which hasn't been given great attention within AR for SD to date. If, as I outlined in Chapter 2, AR comprises 1st, 2nd and 3rd person research, then association is the realm of the third person;

> among the many skills, methods and theories relevant to third-person research/practice, perhaps the most important are those that concern the question of how to engage, motivate and gradually transform concentrations of unilateral power (Torbert 2001 p. 256).

The point being made here is that the perception of AR as operating within a broad context of social learning necessitates an appreciation of power interests within it, and a defined role for the Action Researcher, along with the associated tools and techniques, to engage with these. This framework makes no detailed proposition about how to engage with these power interests at this stage; instead it seeks to recognise this as an important part of the AR role, and explore its implications through practice. This extended version of association is depicted in Figure 4.4.

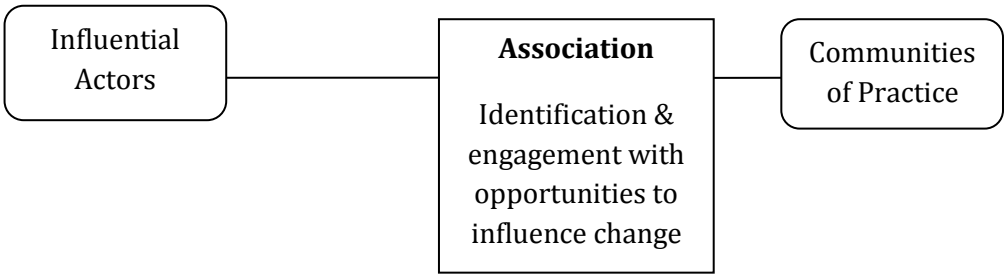


Figure 4.4 An extension of the notion of 'association' (after Ballard 2005)

4.2.4 Awareness: a linking concept using the map as an integrative tool

The condition of awareness is the integrative concept within this framework and is therefore described with reference to the diagram of the whole framework in Figure 4.5. Supported by the 'conversational map', the role of the Action Researcher is to help foster an awareness of dominant interests, but also of emerging interests, and to integrate this into the learning process to support strategy as it unfolds. This is clearly an ambitious task, and it is not the belief that a single Action Researcher could accomplish all elements. However, it is proposed that this is a useful outline of the necessary learning territory, and it is then up to an Action Researcher to decide how they can effectively work within this.

Table 4.2 at the end of this Chapter summarises the specific research objectives which arise from this proposal.

4.3 Applying the framework to the NHS context

In this part of the Chapter, I develop a 'conversational map' for progressing SD in the NHS context, using the generic model provided by Sterling (2003), his application to education (Figure 2.5), and the version I have integrated into the framework (Figure 4.1). I draw on the literature review of Chapter 3, to identify tensions likely to be occurring within NHS SD, at the three levels of values, strategy and practice, and provide a summary of this contextualised map in Figure 4.6. I then highlight what this mapping implies with respect to understanding the actual challenges identified in NHS SD which I also reviewed in Chapter 3.

4.3.1 Mapping the paradigm tensions

4.3.1.1 Values

Figure 4.1 provides guidance that the dominant mechanical paradigm is said to comprise values of separation where we, in whatever context, perceive ourselves as separate entities, and separate from the rest of society and nature. In education policy, Sterling described how this led to an instrumental view of education as a means to prepare the individual for economic life and to act most effectively as an individual within that. In the review of the historical evolution of the NHS provided, I described how core values have predominantly comprised a desire to provide individuals with health treatment, in what has been termed a 'medical model of health'. Whilst there have been some challenges to this model from alternatives which advocate the need to tackle the wider determinants of health, most notably from 1997, these have remained marginal to date. I therefore think that the medical model, along with the individual health treatment it promotes can be placed within the category of a mechanical paradigm; just as education within such a paradigm aims to allow people to function as individual economic actors, individual health treatment aims to provide people with the best chance to function as healthy individual economic actors. Concerns for the wider social and ecological good do not feature within the rationale of this dominant model.

'Conversational map' of Organizational Paradigm Change for SD			
Domains	**Dominant**	**Emerging**	**Learning Level**
Purpose	Objectivity	Participation	3 (treble)
Strategy	Disconnection	Connection	2 (double)
Practice	Manipulation	Transformation	1 (single)

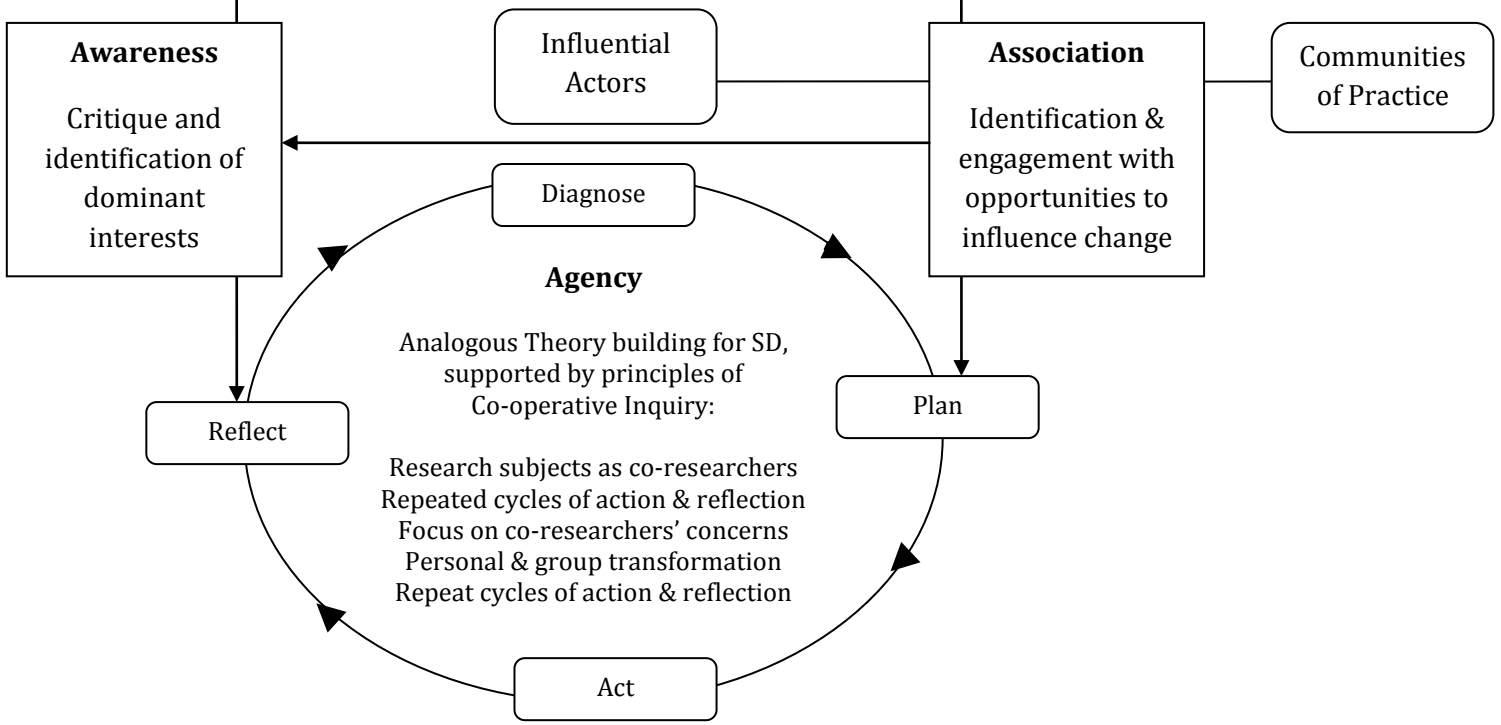


Figure 4.5 A proposal for a framework of AR for SD (extended from Ballard, 2005)

In contrast, Sterling describes values evident within an emerging ecological paradigm concerned with perceiving ourselves, and therefore our organizations, in relation to the rest of the social and natural world. Education within this paradigm is concerned with fostering a sense of contribution to the greater whole in which an individual finds themselves. I think that Sustainable Development as Public Health (SD as PH) bears much resemblance to these ecological values. Social-ecological models of health are concerned with promoting the health of the whole, recognizing that the health of individuals, when viewed in its broadest sense and not just the absence of disease, is dependent on this whole. The NHS, as an influential and hugely resourced organization acting within this whole, should therefore seek to understand how best to contribute to this broad interpretation of health. It is difficult to know where to place Environmental Resource Management (ERM) within these contrasts. In one sense, it sits well with dominant mechanical values, promising to reap financial rewards which can be used to support the core functions of the NHS. In another sense, it sits well with ecological values, with its aims of using its influence to contribute to the wider ambitions, outside the organization, of a sustainable environment. I therefore place it in the middle of these tensions, anticipating that sometimes it is likely to reflect mechanical values, and sometimes more ecological values. Whilst different terminology has been used, recognition and articulation of these tensions has received attention from the critical public health community. Hunter (2003) provides an overview of the fundamental problems for promoting systems models of health via the NHS in its current guise. He describes how this model is incompatible with dominant organizational purpose, focused on the medical model. He explains that health treatment systems have their own interests, as opposed to the needs of greater society, at heart when they promote this model: it justifies the importance of these health treatment systems rather than viewing their role as one role amongst many, which contribute to the health of the public.

4.3.1.2 Strategy

In Sterling's model, the dominant mechanical paradigm is said to comprise strategic approaches which focus on disconnected, discrete entities. Policy systems and the organizations responsible for delivering them, are viewed as controllable machines for which top-down, prescriptive policy has been the dominant strategic approach within education. As discussed in the review provided, since the first attempts to standardize the NHS in the 1980s, the dominant, managerialist approach following the Griffiths Report (Griffiths 1983) would appear to have promoted such strategy. Top-down prescriptive

targets, which grew in number through the 1990s, have been the dominant approach to instilling change. In order to achieve the desired accountability, quantitative measures of performance have been the norm, monitored, as in education, by outside bodies. It is useful then to describe dominant strategy in these terms, but it must also be noted that the picture has not been quite so straight forward. In the review I provide of the NHS, I have included reference to the ongoing paradox which has existed since the purchaser-provider split in the 1980s, when an internal market was introduced. Since this point, top-down prescription has existed alongside demands for local responsiveness to contextual need, and market mechanisms have been introduced to assist this process. More recently, notions of 'patient choice' have been strongly advocated. These trends reflect the continued desire to maintain control, alongside a recognition that it is not possible to fully organize the system from the top, and the need for engaged local activity in deciding strategy.

Sterling describes ecological ideas of strategy as comprising complex systems approaches. With respect to education, he describes how this leads to a more participative, contextually-led approach to policy, than that which dominates. I have already described how SD as PH is grounded in such systems models of health, thereby implying that strategy must also be based on these. There have been some efforts to outline what such models could mean for strategy within the NHS; complexity and health is an emerging area of interest, with a detailed overview of what these models mean for strategy provided by Chapman (2004). Chapman's ideas on the implications of systemic thinking for managers across UK public policy, but specifically in the NHS, whilst not arising directly out of the SD as PH agenda, help to articulate what systems models of health imply for the eidos domain. This work is also supportive of Sterling's notion that such ideas do indeed challenge the dominant paradigm in this context. Drawing on the applications of complexity science to management theory, specifically Checkland's Soft Systems Methodology (Checkland 1984), Chapman agrees that the dominant approach to policy making is largely mechanical. In contrast, systemic approaches need to be much more focused on the concept of learning and reflection, supportive of staff and other stakeholders, in a more participative, contextually aware, and on-going process of priority setting and evaluation. Simple quantitative indicators of success, as dominate in such contexts, ignore complexity, and persistent attempts to achieve them can even lead to unwanted consequences elsewhere in the system. These contrasts are summarised in Table 4.1.

Complex systems based strategy	Mechanical systems based strategy
Trial and error	Aversion to failure
Continuous evaluation	Little time for reflection
Context specific	Uniformity
Minimal specification	Command and control
End-user evaluation	Top-down indicators

Table 4.1 Contrasts in strategic approaches between mechanical and ecological paradigms (informed by Chapmen 2004).

Whilst there has been little direct discussion of the relevance of such complex systems forms of strategy in relation to what is required for SD as PH, these forms are based on the same theoretical groundings, and they therefore help to articulate the nature of the contrast between what is proposed, and what currently dominates. These generalised contrasting exercises help to describe dominant strategy as mostly linear and emerging ideas, evident in SD as PH, as complex. As with the mapping of values above, it is difficult to place ERM into either paradigm. Some forms of ERM are supported by mechanical strategy (those for which cost savings and resource savings are easy to predict), and some forms of ERM require elements of complex strategy (where engagement of many actors is required).

4.3.1.3 Practice

In Sterling's mechanical paradigm, the domain of practice (i.e. how people act) comprises what he calls a focus on manipulation and the planning of outcomes. In education, this manifests as transmissive, didactic forms of education, where the content is largely pre-determined. There is evidence that this style of practice is also dominant in the NHS, and this comes largely from those who wish to critique it. In a continuation of the arguments of Chapman (*ibid*), there is some frustration in the idea that health professionals can deliver health to the population; instead, complex systems ideas require the need to foster relationships with those throughout the social-ecological system. He strongly critiques the 'delivery' approach which he describes as stemming largely from the linear approach to strategy described above, proposing that the public have a larger role to play in transforming the situations which affect their health;

> One can 'deliver' a parcel or a pizza, but not health or education. All public services require the 'customer' to be an active agent in the 'production' of the required outcomes. Education and health care initiatives simply fail if the intended recipients are unwilling or unable to engage in a constructive way; they are outcomes that are co-produced by citizens (p.11).

Such critiques also appear evident within demands for the 'co-production' of public services, including health. A large project carried out by the New Economics Foundation (e.g. Boyle and Harris 2009) aims to describe how this concept is gaining interest across

the political spectrum, and what it means for professionals and the public to be engaged together in the development of structures which support what has been traditionally expected to be delivered by the public services on their own. These would seem to be a reflection of the increasing interest in more complex systems models of strategy, and their implications for more participative styles of practice. In line with the argument coming from critiques such as Chapman's, that transmissive styles currently dominate in the NHS, SD initiatives do seem to be trying to progress alternatives, more in line with systems-based ideas of participation, transformation and co-production, even if there are few detailed analyses of these changes in styles with respect to NHS SD. Within all the documented challenges of SD in the NHS, including those focusing of ERM, such as the waste projects described by Tudor et al (2007) and Tudor et al (2008), ideas of partnerships and relationships as the basis of innovative change, are central. When SD as PH is the focus, Jochelson et al (2004), and Griffiths (2006), call for cooperation, at least amongst professionals working in different parts of the system, even if the public are not explicitly included in these ideas. Perhaps they still signify a shift in thinking in line with Sterling's model of paradigm change, and as now described, it could therefore be useful to discuss this shift more openly than to date.

4.3.2 The potential uses of the 'conversational map'

The purpose of developing a 'conversational map' was to respond to the need for assistance with analogous theory building in AR for SD, helping people to articulate a vision of what things could be like, and critique current practice against this. In this Chapter, guided by the model of paradigm change for SD provided by Sterling (*op cit*), I have attempted to map the dominant organizational paradigm in these terms, using accounts of NHS historical changes. Using the sparse amount of documented accounts of what NHS SD is trying to do, I have reviewed the policy and strategy landscape, along with the small number of reviews of progress to date, to tentatively describe an emerging vision of NHS SD as broadly in line with key components of Sterling's ecological paradigm. Of the two aspects of the NHS SD agenda, SD as PH appears most consistent with this ecological paradigm, and ERM appears to be able to fit into either, depending on how it is approached. I think this exercise goes some way to supporting the idea of a 'conversational map' for this purpose. Its application and practical use within AR is explored through the empirical study. However, even based on this theoretical exercise, it is possible to speculate about its value. First, it outlines the range of possibilities of what could be achieved by recognition and articulation of the most radical forms of SD as PH.

Paradigm domains	Characteristics of the domains	Dominant NHS paradigm	Emerging ecological paradigm	
			ERM	SD as PH
Values	**Model of healthcare supported**	Treat disease in individual via a medical model of health intervention	Partially supported by both models	Contribute to health of hole-communities via a socio-ecological model of health intervention
Conceptual management frameworks	**Summary of strategic model**	Inspired by linear models of strategy with some demand for local responsiveness	Both sets of frameworks relevant	Inspired by complex models of strategy
	Priorities of initiative	Mainly externally prescribed and fixed		Negotiated and provisional
	Evaluation methods	Mainly externally prescribed, narrow, quantitative indicators		Self-generated, broad, qualitative as well as quantitative indicators
	Management styles	top down control with the introduction of market mechanisms		participative and democratic
Activities	**Relationship with community**	Transmission	Both styles of activity relevant	Transformation
	Nature of tasks	Product oriented		Process oriented
	Relationships with partners	Emphasis on health service delivery		Emphasis on co-production of healthy communities

Figure 4.6 A 'conversational map' for the NHS

The mapping exercise shows that such articulation is currently lacking, hence my need to piece together a very tentative vision from complex systems ideas not directly applied to NHS SD to date, but which seem theoretically consistent with the over-arching model being promoted in such guidance as the NHS 'virtuous circle' of SD as PH (Coote *op cit*). By conducting this exercise, I reveal this to be a gap in skills and knowledge. This is based on an understanding that whilst there are general models available to help frame SD as PH such as the *Health Map for the Local Human Habitat* (Barton and Grant *op cit*), there are few accounts of how to strategically work towards its objectives from the perspective of a single organization. I suggest this explains the challenges of measurement and evaluation

of impact so evident within examples of NHS SD to date, as described by Jochelson et al (*op cit*). People do not know how to carry out such strategic work, therefore the business case for such projects is difficult to make. By documenting the vision on the map, such gaps can be identified.

Second, it outlines the actor groups and interests responsible for maintaining the dominant paradigm. As already introduced, there is a critique from the Public Health community evident in the work of Hunter (2003) and Hunter and Marks (2005), which describes how the NHS acts largely in the interest of the medical model of health, and has built up a workforce largely to serve this purpose. If this is the case, then any serious demands for the NHS to progress SD as PH require that the medical profession must be engaged with. Because this debate concerns fundamental issues about NHS purpose and the role it should or should not have in tackling wider determinants of health, it cannot be left to champions at the local level to carry this out alone. This raises a question about whether, and to what extent, the national policy makers for SD, such as the Sustainable Development Unit (SDU), engage in this debate on behalf of its champions. Currently, the SDU appears uncertain of its role in this regard, tending more towards working within the dominant paradigm, therefore promoting ERM in a form which supports this, whilst implying there is in fact a broader agenda to be had:

> This is not about an altruistic approach to a better future. This is about the future shape of the NHS and how to provide care for a changing population in a changing world. Reducing carbon emissions will not only save money that can be reinvested directly into patient care but will also protect and promote the NHS and the health and sustainability of society (SDU 2009 p.19).

This is evidence of the mixed messages which those leading NHS SD, sometimes termed 'Champions' attempting to respond to SD policy, have to navigate. The 'conversational map' helps identify the debates involved with a view to engaging more directly and transparently in them.

Third, and perhaps of most immediate value, is the potential for this map to help champions at whatever level they work, to understand the contextual constraints and opportunities affecting them. From personal experience as well as observations made of others, I think enthusiastic champions tend to jump in, imagining they can significantly effect change, and therefore can get burnt out when they come up against persistent barriers. The map could help people recognize the system as a whole and that opportunities are therefore likely to differ by context, and that they could seek opportunities for change within this, rather than trying to achieve it all. It is the potential

for the map to be used in these ways, which is explored in the empirical work. I conclude this Chapter with a summary of the specific research objectives which arise from the proposal of this framework, to which the specific methods outlined in the next Chapter are linked.

4.4 Directing the framework at the dual-level research objectives

Research aims	**Using the framework to define specific research objectives**
Meta-level inquiry: *The relevance and implications of a participative worldview to contributing to knowledge for organizational sustainable development*	
Developing the theory & practice of Action Research for Organizational Sustainability as combined researcher-participant strategy specifically by: • Integrating the concept of theory building for SD • Integrating theoretical understanding of learning process in organizations • Defining an 'integrative' role for researcher, and a 'participative' role for practitioners	Explore theoretical propositions made in the meta-level literature review through real-life researcher-participant inquiry, specifically: 1. the use of a 'conversational map' of paradigm change for NHS SD, to aid the integration of theory building for SD 2. the potential for AR process to contribute to transformational learning process in the NHS 3. the 'integrative' role of the researcher, and the 'participative' role of practitioners in this context
Context-level inquiry: *Understanding and advancing Sustainable Developmentstrategy in the NHS*	
Develop a theoretical understanding of NHS SD through a framework which can guide: • definition of different interpretations of NHS SD • an understanding of the challenges and opportunities experienced in their enactment • an Action Research approach to strategy for progressing SD in the NHS	Explore theoretical propositions made in the context-level literature review through empirical research to: 4. Define different interpretations of NHS SD evident within best practice cases, using the 'conversational map' 5. Explore how challenges and opportunities experienced in these different interpretations of NHS SD relate to paradigm tensions identified by the 'conversational map' 6. Develop a co-operative researcher/participant strategy for change within 1 NHS organization

Table 4.2 A summary of the dual-level research objectives

5 Methods of inquiry

5.1 An introduction to methods used

In Chapter 4, I present the theoretical framework to guide Action Research (AR) for Sustainable Development (SD) in the NHS (Figure 4.5), and I present research objectives which arise from this, at two levels (Table 4.2). At the meta-level, the questions concern the framework itself: its strengths and weaknesses and how it could be developed. At the context level, the questions concern what enactment of the framework actually reveals about SD in the NHS, including the relevance of such AR approaches to address its challenges. In this Chapter, I outline the methods used to respond to both of these levels of research questions. These methods are divided into two Phases. Phase 1 is concerned with ensuring that the application of the 'conversational map' for the NHS provided in Chapter 4 (Figure 4.6), as derived from a document review of context, is useful for understanding the experiences of NHS SD initiatives. This Phase therefore contributes to generalisations about the NHS SD agenda, which are context-level contributions in their own right, and is most clearly linked to serving the context-level research objectives. Phase 1 also serves the purpose of opening up communication with those involved in NHS SD, with a view to inviting participation in enactment of the framework in Phase 2. In Phase 2, the 'conversational map', now strengthened through the empirical study of Phase 1, is used within an organizational AR initiative with one NHS Trust, as guided by the framework. This Phase therefore contributes further to the context-level research objectives through an in-depth study of one case, whilst also enabling a response to the meta-level research objectives about the process of the framework.

The purpose of this Chapter is to provide a detailed overview of the methods used in both Phases in order to achieve responses at both levels of inquiry. Semi-structured interviews were used in Phase 1, and cycles of Co-operative Inquiry were used in Phase 2. Within these cycles, a number of other methods were used including further interviews, facilitated group discussion, and storytelling. As McCardle and Reason (2007) describe, AR does not determine the specific methods used, or indeed the format by which they are employed, but simply requires that they are used in a way which responds to the ambitions of the Participative Research Paradigm (PRP). There are a number of different categorizations for methods and examples include Blaikie (2000) and Robson (2002). The most broad category used is the division of methods into those concerned with numbers, termed 'quantitative', and those concerned primarily, although not exclusively, with

words, termed 'qualitative'. This quote from Blaikie (*op cit*) is illustrative of this distinction:

> Quantitative methods are generally concerned with counting and measuring aspects of social life, while qualitative methods are more concerned with producing discursive descriptions and exploring social actors' meanings and interpretations (*op cit* p. 232).

Within this distinction, there is a category which concerns the source of the information obtained in the method: whether this is primary (comes directly from the source, such as interviews), or secondary (comes via an intermediary source, such as published statistics about a phenomenon). Robson (*op cit*) also pays great attention to distinguishing methods by how they are employed, as well as what they are. So, they can either be used to ascertain a 'fixed' objective, often to test a pre-determined hypothesis, or they can be used in a more 'flexible' way, often being shaped far more by context, in order to generate new theory. Within AR, it is acceptable to use any of these types, as long as transparent efforts are made to achieve consistency with the principles of the PRP. McCardle and Reason place the emphasis on the process by which these choices are made, rather than on the methods themselves:

> it (Action Research) is full of choices: rather than thinking in terms of getting it right or wrong, Action Research must endeavour to make appropriate choices in different situations (*ibid* p135).

In this Chapter I provide the rationale behind the choice of methods and the format in which they are employed in both phases.

It is important to state at this stage that research involving NHS staff or patients requires ethics approval from an NHS Ethics Committee. Approval for conducting research with staff in these two phases of research was received in August 2006 from Leeds (West) Research Ethics Committee and, as is a requirement, it is annually updated[3]. Where the approval process influenced specific methods adopted, this is specified in this Chapter.

5.2 Phase 1

5.2.1 An overview

As introduced above, Phase 1 is concerned with ensuring that the application of the 'conversational map' provided in Chapter 4 (Figure 4.6), as derived from a document review of context, is useful for understanding the experiences of NHS SD initiatives. It is also a means of opening lines of communication with those involved in NHS SD, with a

[3] Research Ethics Committee Reference: 06/Q1205/172

view to participation in Phase 2. Figure 5.1 provides an overview of this Phase and is explained in more detail below.

Phase 1 Interviews

11 Semi-structured (1 hour) interviews with personnel working on NHS SD projects, 4 semi-structured (1 hour) interviews with those working on NHS SD policy and guidance. Interviews designed to enable definition and explanation of these projects and policy initiatives, with reference to the parameters of the 'conversational map'.

Four interview topics derived from the format of the 'conversational map' (shown in red)

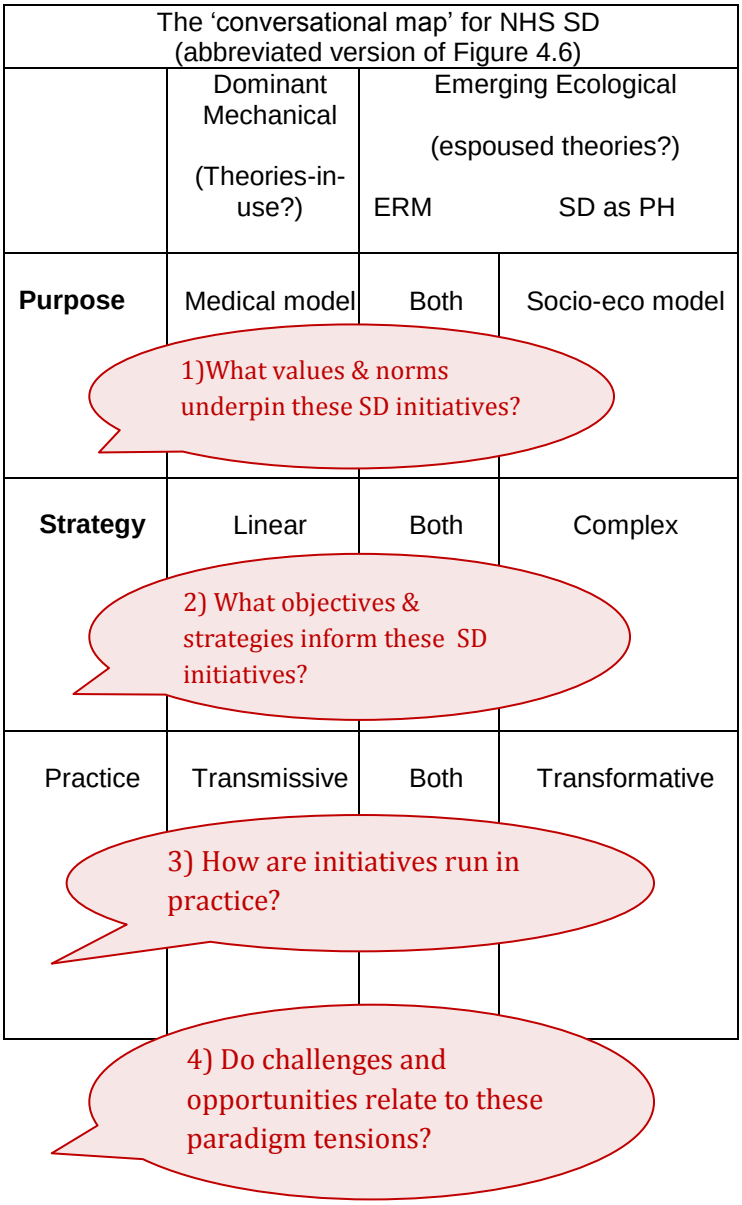


Figure 5.1 An overview of Phase 1

Figure 5.1 indicates the link between the 'conversational map' as applied to the NHS context, and the interviews which comprised most of this Phase. It shows that these interviews were developed in line with the parameters of the 'conversational map' which are the domains of purpose, strategy and practice. They sought to define the projects that 11 of the interviewees were involved in with respect to these domains. This is reflected in questions 1, 2, and 3 shown in red, which are about ascertaining project purpose, strategy and practice respectively. The interviews also sought to explain the projects that the interviewees were involved in with respect to the tensions likely to exist between domains within a dominant organizational paradigm, and those of the projects they were trying to progress. Four interviews were also carried out with people responsible for developing policy and guidance for NHS SD. They were asked the same four questions but with the emphasis changed to account for their different role. Rather than implementing guidance as the practitioners had to do, these people were responsible for helping to steer the agenda through developing the guidance in the first place. In this section, I explain in more detail how these interviews were designed and carried out, and how they were used to invite participation for Phase 2.

5.2.2 The need for qualitative, primary data

As is described in more detail below, Phase 1 comprised 15 semi-structured interviews with practitioners and policy makers within the NHS. In this section I explain why these were qualitative and primary. The research question to which Phase 1 seeks to respond is about understanding the theories-in-use of those attempting to progress NHS SD, and why these may be as they are. Qualitative methods, as introduced above, with their emphasis on understanding the meanings people make of their context, and whether patterns can be observed with respect to these, are therefore appropriate. I chose to explore these meanings from primary sources for practical reasons, as well as methodological reasons described below. Practically, I knew from my own experience as well as the review of literature provided in Chapter 3, that documentation was sparse and varied considerably from case to case. There was not (and still is not) any standard reporting requirement for NHS SD. NHS SD projects may be written about in a variety of organizational documentation, and in a variety of formats. Within these generalised summaries, the focus has been on the outcomes achieved. The experiences of the individuals involved in progressing these: their ambitions and the challenges and opportunities which they face, have not been provided in any detail. It was therefore practically necessary to seek responses to these questions from people, and not from the secondary documentation.

5.2.3 Interviews as part of a participatory research design

As well as being important for practical reasons, the choice to engage directly with people involved in NHS SD (practitioners and policy makers) was also important methodologically. Whilst interviews on their own are not a highly participative, nor an action-focused strategy, of the kind required for the PRP, they provide the first opportunity to develop the necessary conditions for achieving this. In this case, they provided a forum for developing the relationships, trust and commitment needed for subsequent Co-operative Inquiry in Phase 2. In addition, even without a subsequent participatory phase, they can potentially serve to assist respondents in reflection on their actions with a view to change, if approached and designed with this perspective in mind. So, in line with Roth and Bradbury (2008), interviews can be designed to be 'reflective' (p. 354), and to seek to engage others in recognising a gap between the way they do things at present (their theories-in-use), and the way they would like things to be done in the future (espoused theories of SD), with a view to considering what needs to be done to bridge such gaps. As I describe below, the interview structure is designed to achieve such a conversation by using the interviewer role to help others understand their context and identify opportunities for change. Approached in this way, interviews, whilst preparatory for a more participatory Phase 2, can already form part of the pragmatic, change-focused ethos of research within the PRP. The 'power of the positive question' has also been described by Ludema et al (2001). Within the perspective on knowledge outlined so far within this thesis, the importance of language in the construction of reality has repeatedly been discussed. Hence, viewed in this light, positive questions can help to direct the shape of this future if a commitment is made to persistently ask them:

> human systems grow and construct their future realities in the direction of what they most persistently, actively and collectively ask questions about (Ludema et al *ibid* p. 158)

5.2.4 Identifying and recruiting interviewees

In order to understand the context of any findings obtained from research, it is necessary to clearly identify the source of these findings, in this case so that I understand whose theories-in-use I describe. This required defining who the research respondents were, and what their role was within the NHS SD agenda. Such information is not available in any detail from previous studies reviewed in Chapter 3 (e.g. Jochelson et al *op cit;* Griffiths *op cit* 2006) but I think this is an important step in recognising these people as agents for change within this agenda. At the time of developing Phase 1 of this research, I understood there to be two relevant groups of people who could help to verify the

'conversational map'; those involved in developing SD initiatives in individual NHS Trusts and those involved in policy development at the national level.

In order to identify the people within the first group, I had two main choices. First, I could have written to every NHS Trust in England to find out whom, if anybody, was responsible for SD in their organization. This could have provided me with a list of contacts, but this did not seem an efficient way of seeking my objective. SD within an NHS Trust does not fall neatly into any one department therefore it would not be clear who to write to. In addition, whilst this had potential to reveal much about the different levels of engagement in SD from across the NHS (i.e. by identifying those which were not responding, as well as those which were), this was not my research objective. I was interested in understanding the experience of those actively engaged in SD activity. At the time of commencing these interviews (2006), this agenda was discussed with reference to a relatively small number of projects across the NHS hailed centrally as Best Practice, most of which were, at least until the time of writing this thesis, held in an online catalogue by the Sustainable Development Commission (SDC 2010). It was within these projects that NHS SD appeared to be being defined and explored, therefore it was the people leading these whom I termed '**Project Leads**' and wished to interview.

In order to identify the Project Leads, I used this catalogue as my principle source of contacts. It is freely accessible and contains details of self-nominated SD projects, generally including details of project aims, key outcomes, and contacts for further information. Projects held within the catalogue vary considerably and range from those with a relatively narrow scope e.g. the development of Green Travel Plans for NHS organizations, to those which are much broader such as the incorporation of sustainability principles into a major re-development of NHS service provision in a community. Within this catalogue there are no categorizations to distinguish between types of initiatives in terms of scope or organizational structure, neither had any categorizations been made in previous studies. Therefore I decided that I should be as inclusive as possible of all types at this stage, and I hoped the 'conversational map' had value in leading to an understanding of a broad range of experiences of trying to enact NHS SD, recognising that groups of SD projects are always likely to exhibit a range of scope. For this reason, and as there were only a limited number of such cases available in the catalogue (less than 20), my criteria for inclusion were therefore very broad:

i) Case study identified as Best Practice

Inclusion in the SDC catalogue was the most obvious way that initiatives were labelled as Best Practice. However, I was aware that not all initiatives were included here and that, by talking to one project lead, I may be signposted to others within their existing networks, also thought to be leaders of SD projects. I added two interviews via such signposting.

ii) Currently active initiative

In a constantly changing field, I felt that projects which had already completed were not necessarily indicative of current direction. Also, in line with the action-oriented spirit of this research, I felt that the closer the participants were (in time) to the actual experiences I asked them to describe, the more useful this would be in terms of providing insights for addressing the challenges. I also wanted to maintain the possibility that participants could collaborate in Phase 2. For all these reasons, I sought Project Leads from current initiatives.

iii) Initiatives from any part of the UK which meet the above two criteria

Because it was my aim in this phase to interview as many people with experiences of progressing NHS SD as possible, I decided to include projects from other UK countries in addition to England, as a significant number of projects were from Wales and Northern Ireland. As described in Chapter 2, their projects arise within the same policy context manifest in *The UK Sustainable Development Strategy (*DEFRA *op cit)* and *The UK Low Carbon Transition Plan* (DECC *op cit*). They may have different experiences in practice, but I hoped my framework was flexible enough to allow for this. As I was more interested in the process of using the framework for reflection, than generating generalising theory about SD in the NHS, this did not appear to compromise my aims. In short, it would have made for a neater study to restrict cases to England, but would have excluded a significant proportion of available cases.

In addition to this first group, (those involved in developing SD initiatives in individual NHS Trusts), I began this section by explaining that I was also interested in a second group: those involved in policy development at the national level of influence. I understand this group as those people more engaged with the conceptualization of NHS SD than the practice, such as policy makers and advisors. Chapter 3 provides an overview of the NHS SD agenda and introduces two distinct components of this, summarized in Figure 3.1. These are 'Environmental Resource Management with a focus on reduction of CO_2 emissions' (ERM) and 'Sustainable Development as Public Health' (SD as PH). At the

time of conducting these interviews, the Estates & Facilities Management Division of the Department of Health (DH), and the NHS Purchasing and Supply Agency (now abolished)[4] were responsible for guiding the development of 'ERM', from within the DH. The Sustainable Development Commission (SDC) and the Healthcare Commission (also now both abolished)[5] were more independent advisory organizations, key to developing the other aspect: 'SD as PH'. The SDC led the 'Healthy Futures Project' aimed at encouraging and supporting NHS Trusts specifically via the development of the Good Corporate Citizenship Toolkit, and the Healthcare Commission considered the relevance of SD to governance and performance management across the NHS. Other agencies which now exist in this group are also shown in Figure 3.1 and these are the Sustainable Development Unit (SDU) and the NHS Regional Networks for SD. These did not exist at the time.

In each of these policy and guidance organizations, key members of staff had specific responsibility for developing this agenda. I felt that interviewing these people, whom I call '**Policy Leads'** would help me to understand espoused theories of what NHS SD could be. In addition, these people may have thought more, and therefore have more to say, about purpose and strategy for SD, which should inform NHS activity, than those primarily concerned with the activity itself. They may also have reflected on, or even be having influence over, sources of political tensions influencing SD in this context, which arise from the dominant organizational paradigm, and are evident at the broader level than that of individual organizations. In short, they are an important part of the whole system of influence. An important role of Action Researchers, as conceptualised in the framework I present in this thesis, is to facilitate the communication between different parts of the system of influence, hence the need to understand how voices across such a system may differ.

In order to recruit interviewees from both of these groups, I phoned individual Project Leads (identified through the catalogue or by personal signposting) and Policy Leads (identified through policy documents), and invited them to take part in a subsequent telephone interview at a convenient time. In line with the NHS Ethics approval process for research with NHS staff or patients which I introduced in 5.1, those who agreed to take part were sent the following documents before interview: a covering letter, a 'participant

[4] NHS Purchasing & Supply Agency responsibilities largely replaced by 'Buying Solutions' in 2009

[5] Healthcare Commission responsibilities largely replaced by the Care Quality Commission in 2009, SDC replacement responsibilities currently uncertain (announcement for abolishment made August 2010)

information sheet', and a consent form to sign and return. These are included in Appendices 2a-2c respectively. They were also sent a short questionnaire requesting general details about their project, and their role within this, which is included in Appendix 2d. Whilst not all those contacted were from the NHS, I followed the same procedures for all, as it proved to be an effective form of communicating research aims and practical arrangements. From this preliminary investigation I distinguished between two types of Project Leads, a distinction which I had not previously identified. There were those who led projects from within the NHS organizations themselves, which I termed Type 1, and those who led projects from within organizations external to the NHS, but which were directed at the NHS, which I termed Type 2. I termed the interviews with Policy Leads as Type 3 interviewees.

Table 5.1 provides a summary of the initiatives from which Types 1 and 2 interviewees were drawn and a list of the organizations from which Type 3 interviewees were drawn. The numbers against each of these initiatives or organizations is used from here-on to reference responses from individual interviews. As this initial categorization shows, Type 1 projects vary from narrow scope with Projects 1.1 and 1.2 focusing on an aspect of energy management to a much broader service re-development in Projects 1.3 and 1.4. As well as these four projects which are concerned with distinct initiatives, Projects 1.5-1.7 involve ongoing strategic work on public health, sustainability and the supply chain management respectively. In Type 2, the focus is on potential contributions of NHS procurement (Projects 2.1, 2.2, and 2.4), and recruitment practices (Projects 2.3), within the local community.

5.2.5 Developing interview structure from the 'conversational map'

Interview types range from those which seek responses to highly structured, fixed response-type questions, to those which seek a largely unstructured, open-ended conversational style. Various terms are used to make this distinction: Weiss (1994 pp. 2-3) uses the terms 'survey interviews', and 'qualitative interviews' respectively. Robson (*op cit* pp. 270) also differentiates between these, referring to them as 'structured' and 'unstructured' respectively. He also describes 'semi-structured' which, although guided by specific researcher-led objectives, are flexible in how they allow for different responses depending on an interviewee's particular story.

Type 1 Interviews (NHS Project Leads)	**Type 2 Interviews** (External Project Leads)	**Type 3 Interviews** (Policy Leads within National NHS SD Programmes)
1.1 Renewable energy Wind turbine and energy management	**2.1 Food procurement** Developing a sustainable (local) supply chain	**3.1 Department of Health Estates & Facilities Management Division** Sustainable Development of the NHS Estate
1.2 Renewable energy Biofuels	**2.2a & 2.2b Procurement** Developing a sustainable supply chain	**3.2 Healthcare Commission** Good Corporate Citizenship
1.3 Service re-development Sustainable build & community regeneration	**2.3 Recruitment** Developing NHS employment opportunities	**3.3 Sustainable Development Commission** Good Corporate Citizenship
1.4 Service re-development Sustainable build & community regeneration	**2.4 Meat procurement** Developing a sustainable (local) supply chain for meat	**3.4 NHS Purchasing & Supply Agency (PASA)** Sustainable Development in the NHS supply chain
1.5 Strategy Development Linking Public Health and Environment		
1.6 Strategy Development Integrated Sustainability Strategy		
1.7 Food procurement Developing a sustainable supply chain		

Table 5.1 A summary of the Projects and organizations studied in Phase 1

As the purpose of the interviews was to verify my own theoretical understanding, as the basis for purposive, analogous theory-building, it was appropriate to have a pre-determined structure to the interviews based on the 'conversational map'. However, as the content was discursive, and about how people made sense of quite complex experiences, flexibility in terms of tailoring questions and follow-up prompts to individual responses, was also required. I also intended to be highly engaged and to respond with observations and suggestions informed by the 'conversational map'. Semi-structured interviews were therefore deemed appropriate. I planned that interviews be conducted by telephone in order to allow me to include as many of the Project Leads and Policy Leads identified, as possible. Travelling to so many different parts of the UK to conduct interviews in person was neither practical, nor necessary.

In order to ensure a link between the research objectives and the actual interviews, I developed a documented guide to the content, format and procedures of these, for each interview type. The full version of these guides is contained in Appendices 3a-c. Such guides are viewed as best practice in interviewing, and various terms are used for them,

including an 'interview guide' (e.g. Weiss *op cit* p. 45) and a 'topic guide' (e.g. Gaskell 2000 p. 193). I use the term 'interview guide' as this is slightly more general, therefore indicating that this includes details of procedures followed, as well as topics covered. Such details include how I should introduce myself and my research objectives at the outset, and how I should conclude with details of what would happen after the interview had finished. Whilst the procedures were the same for all three types of interviews, different versions of the questions were developed to account for differences between the three types of interviewee. With respect to questions, the guides included four general categories, as well as follow-up prompts to tease out further details if not immediately forthcoming. Both the general categories and the follow-up prompts were guided by the 'conversational map'. The four general categories are translations of my four questions concerned with identifying and understanding causes of theories-in-use, as shown in red on Figure 5.1, into appropriate interview question categories. For Types 1 and 2, this translation is identical, and is shown in Table 5.2.

Identifying theories-in-use	My Question: What objectives & strategies inform these SD initiatives? *Interview Category 1: **What** is the project trying to do, and how does this fit in with any other SD objectives for the organization?*
	My Question: How are initiatives run in practice? *Interview Category 2: **How** is the project, and the wider targets (if applicable) run in practice?*
	My Question: What values & norms underpin these SD initiatives? *Interview Category 3: Taking a step back, **why** is any of this important to the NHS?*
Identifying and understanding gap between desired vision and theories-in-use	My Question: Do the challenges and opportunities faced relate to these paradigm tensions? *Interview Category 4: can you reflect on progress to date and future direction?*

Table 5.2 Development of general categories from the 'conversational map' (Types 1 and 2)

As indicated by Table 5.2, the interview categories followed a particular order within the guide which differs from that of the 'conversational map'. I believed it was appropriate to start with the category concerning 'what' each project was trying to do. In this category, I also ascertained whether or not the project was part of a broader programme of SD within the organization, as this would be useful in terms of understanding its purpose. I felt that this descriptive category led naturally onto the further descriptive category about 'how' the project was enacted. I held back the category concerning 'why' the project was enacted, until after these descriptions. Having discussed these descriptions, I felt it would be easier for an interviewee to discuss the less tangible subject of 'why'; they would have something tangible to relate this discussion to, and be more relaxed and open, as is

required when discussing questions of purpose and values. Type 3 interview categories were similar, but, as the interviewees were mostly involved in policy and vision, the questions focused more on intention for NHS SD, than on experience of practice. I felt that with these interviewees, I needed to start by discussing the more intangible subject of 'why', in order to enable them to discuss how they thought such visions could be enacted in practice. I thought that for them, the vision should be the aspect they felt most at ease with discussing. These categories are shown in Table 5.3. For all Types, the final category enabled me to explore the tensions being experienced in practice. The responses from Types 1 and 2 were about their own experiences. The responses from Type 3 were about any generalised experience they were aware of, in terms of feedback they had received on the progress with their stated policy intentions.

Identifying theories-in-use	My Question: What values & norms underpin these SD initiatives? *Interview Category 1: **Why** is this agenda important to the NHS?*
	My Question: What objectives & strategies inform these SD initiatives? *Interview Category 2: **What** do you intend to be the response of NHS organizations to this policy and/or guidance?*
	My Question: How are initiatives run in practice? *Interview Category 3: **How** should NHS organizations go about everyday implementation of this agenda?*
Identifying and understanding gap between desired vision and theories-in-use	My Question: Do the challenges and opportunities faced relate to these paradigm tensions? *Interview Category 4: can you reflect on progress to date and future direction?*

Table 5.3 Development of general categories from research objectives (Type 3)

As shown in the full versions of the interview guides, there were also sub-questions for each of these categories, used as prompts to myself about the details of the 'conversational map' which I aimed to verify. E.g. with respect to the 'why' category, I was interested in the underlying purpose of the NHS SD project or policy, and whether this resonated with ideas of SD as PH, ERM, or both. Specifically, I was interested in the model of healthcare that a particular project supported. If these responses were not immediately forthcoming, I would use sub-questions as prompts for myself to address these within the interview. With respect to the 'what' category, I was interested in the conceptual frameworks which may be influencing the strategic approach to NHS SD adopted (Types 1 and 2) or advocated (Type 3): whether these were based on complex models of cause and effect more interested in relationships and process, or linear models, more interested in specifying outcomes. There are several sub-questions derived from the 'conversational map', to explore this, such as the approach to prioritisation, planning, and evaluation.

With respect to the 'how' category, I was interested in the nature of daily activities within a project, or advocated in a policy. Specifically, I was interested in the nature of relationships and tasks existing, or being advocated, and the skills they used to enact these.

The fourth question was much more open-ended, concerned with reflection. Here, I was interested in whether project or Policy Leads were satisfied with progress; whether or not they felt they were enacting what was espoused within policy and guidance, and whether or not the challenges and opportunities they faced could be explained with reference to the influence exerted by the dominant organizational paradigm. I did not necessarily expect a whole project or policy to experience such challenges or opportunities, but that aspects of it may do so. For this category in particular, but also for all categories, I used the background information on the specific project or policy I had obtained prior to the interview, as basis for general discussion. For example, when it was apparent that projects had involved external partnerships or cross departmental engagement, I used my theoretical understanding of the difficulties of enacting such working arrangements within the NHS, derived from generalised accounts (Jochelson et al 2004, Tudor et al 2007). Based on this understanding, I asked how projects have overcome this issue, the extent to which they felt they were effective in doing so, and ideas for progressing this further. In summary, I took the approach that as much information as possible should be gained from each interview, and that I did not have to standardise the format too much. The categories and sub-categories served to ensure that my objectives of verifying the framework were met, but I was led very much by the context of each interviewee, with respect to the emphasis which was placed on each category, and the sub-questions used.

The interview guides included in the Appendices are revised versions, which I developed through practice. In the earliest interviews, I was less clear about the nature of sub-questions which could help achieve adequate responses in all the categories and these were not directly linked to the 'conversational map'. As I conducted more interviews and became clearer about my role as an interviewer in this type of research, I learnt to be much more direct about the links to the 'conversational map'. In the earliest version, I was also more concerned with specifying wording for the questions so that I felt adequately equipped for the interviews. I quickly found this to be unhelpful, and that it was more effective to be guided only by the broad categories, and general prompts of the sub-categories, so that I could listen and respond to interviewees' individual stories, picking up on their own areas of interest and following up on these with more contextualised questions.

5.2.6 Developing a structure for analysis from the 'conversational map'

Just as the interview guides were developed from the 'conversational map', so were the analytical frameworks. I aimed to capture the experience of each interview in two stages: first, I used an interview summary sheet to record my initial impressions. This followed a procedure described by Miles and Huberman (1994) in which they suggest this to be a useful way to capture the mood and impressions of the interview, which may not be evident from an interview transcript at a later date. Following their suggestion that these should be organized around particular questions, I organized these summary sheets around the categories of questions contained in the interview guide, but also allowed for more general impressions to be recorded. The summary sheets should also serve to record basic information about the interview such as who took part, and when. Table 5.4 provides a summary of the types of information I recorded in these. It indicates that I recorded an initial impression of response to question categories 1-3, but that the record I kept for the reflective question 4 was less comprehensive. In retrospect, this was an omission, and for clarity there should have been a direct question about reflection on progress within the summary sheet.

Interview description Type of interview (phone/person) Interviewee name/job description Interviewee organization Length of interview Interview date Today's date
What were the main issues or themes that struck you in this interview?
Project Theories-in-use *Values* *Strategy* *Purpose*
Anything else that struck me as salient, interesting or illuminating in this interview?
What didn't I find out, which needs to be followed up, or addressed in other interviews?

Table 5.4 Information recorded in the Interview Summary Sheets

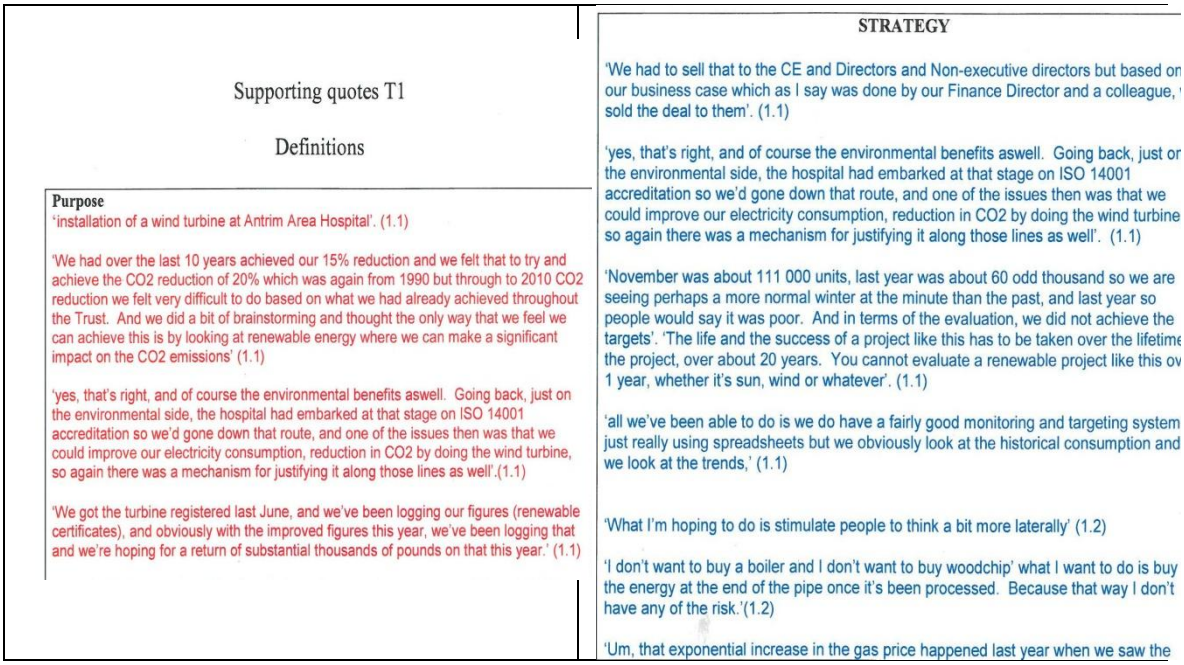
In the second stage, a full interview transcription was made, from which to draw evidence of theories-in-use, as well as any generalised impressions of the gaps between their ambitions and what they were currently able to achieve, and the factors which may cause this and the potential for addressing these. In order to achieve this, I followed commonly used practice when analysing words, which is the development of a coding structure. As is evident by many writers on qualitative methods including Weiss (1994) and Robson (2002), coding is a common process for making sense of qualitative data, such as interview transcripts. The definition provided by Bryman (2004) is representative of these writers, where coding is described as 'the process whereby data are broken down into component

parts, which are given names' (p. 537). In other words, coding is viewed as a process of reducing content into manageable chunks, which serve the needs of particular research questions.

As Miles and Huberman (*op cit*) explain, there are two aspects to coding. The first is the generation of the code itself as 'an abbreviation or a symbol….in order to classify the words. Codes are categories' (p.94). In this case, three out of the four interview questions led to quite descriptive categories, concerned with the definition of the projects or policies. These were generated directly from the conversational map and were project **purpose**, project **strategy**, and project **practice** (words in bold used as the abbreviated version, so became the codes). Whilst sub-questions differed by respondent slightly, these were also pre-determined by the 'conversational map'. The fourth questions led to a broad category of project or policy **reflections.** This category concerned the experiences of trying to implement these definitions, leading to sub-categories of a more explanatory, rather than descriptive, nature. The sub-categories included here, were intended to lead to the revelation of specific themes concerning the experience of trying to progress these definitions. Therefore, these sub-categories remained broad at the outset, and were the same for all three interview types. Table 5.5 summarises the complete coding structure used to begin analysis.

	Type 1	**Type 2**	**Type 3**
Project or policy definitions			
Category 1 Values & purpose	Direct aims, Indirect aims	Direct aims, Indirect aims	Role of agency in SD, Perceived aim of NHS SD
Category 2 Strategy	Prioritization & planning, Evaluation	Prioritisation & planning, Evaluation & Indicators	Prioritisation & planning advocated, Evaluation & indicators advocated
Category 3 Practice	Internal relationships, External relationships, Relationships with community	Project structure, Approach to NHS engagement, Approach to other partners	Project structure advocated
Category 4 **Project or policy reflections** Constraints Opportunities Skills and knowledge gaps Ideas for the future			

Table 5.5 A summary of the coding structure used for Phase 1 interview analysis



Supporting quotes T1

Definitions

Purpose

'installation of a wind turbine at Antrim Area Hospital'. (1.1)

'We had over the last 10 years achieved our 15% reduction and we felt that to try and achieve the CO2 reduction of 20% which was again from 1990 but through to 2010 CO2 reduction we felt very difficult to do based on what we had already achieved throughout the Trust. And we did a bit of brainstorming and thought the only way that we feel we can achieve this is by looking at renewable energy where we can make a significant impact on the CO2 emissions' (1.1)

'yes, that's right, and of course the environmental benefits aswell. Going back, just on the environmental side, the hospital had embarked at that stage on ISO 14001 accreditation so we'd gone down that route, and one of the issues then was that we could improve our electricity consumption, reduction in CO2 by doing the wind turbine, so again there was a mechanism for justifying it along those lines as well'.(1.1)

'We got the turbine registered last June, and we've been logging our figures (renewable certificates), and obviously with the improved figures this year, we've been logging that and we're hoping for a return of substantial thousands of pounds on that this year.' (1.1)

STRATEGY

'We had to sell that to the CE and Directors and Non-executive directors but based on our business case which as I say was done by our Finance Director and a colleague, sold the deal to them'. (1.1)

'yes, that's right, and of course the environmental benefits aswell. Going back, just on the environmental side, the hospital had embarked at that stage on ISO 14001 accreditation so we'd gone down that route, and one of the issues then was that we could improve our electricity consumption, reduction in CO2 by doing the wind turbine so again there was a mechanism for justifying it along those lines as well'. (1.1)

'November was about 111 000 units, last year was about 60 odd thousand so we are seeing perhaps a more normal winter at the minute than the past, and last year so people would say it was poor. And in terms of the evaluation, we did not achieve the targets'. 'The life and the success of a project like this has to be taken over the lifetime the project, over about 20 years. You cannot evaluate a renewable project like this ov 1 year, whether it's sun, wind or whatever'. (1.1)

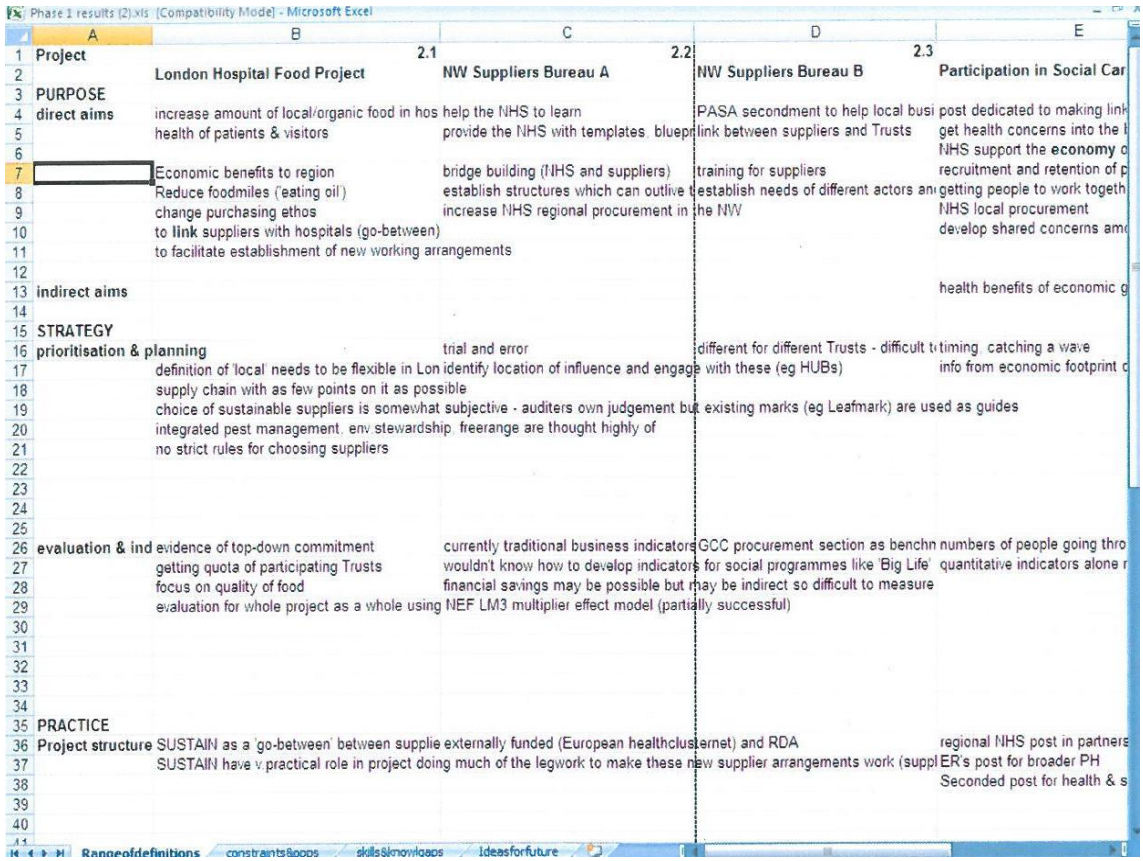
'all we've been able to do is we do have a fairly good monitoring and targeting system just really using spreadsheets but we obviously look at the historical consumption and we look at the trends,' (1.1)

'What I'm hoping to do is stimulate people to think a bit more laterally' (1.2)

'I don't want to buy a boiler and I don't want to buy woodchip' what I want to do is buy the energy at the end of the pipe once it's been processed. Because that way I don't have any of the risk.'(1.2)

'Um, that exponential increase in the gas price happened last year when we saw the

Figure 5.2 Storage of Phase 1 quotes by category using a Word document



Phase 1 results (2).xls [Compatibility Mode] - Microsoft Excel

	A	B	C	D	E
1	Project	2.1	2.2	2.3	
2		London Hospital Food Project	NW Suppliers Bureau A	NW Suppliers Bureau B	Participation in Social Car
3	PURPOSE				
4	direct aims	increase amount of local/organic food in hos	help the NHS to learn	PASA secondment to help local busi	post dedicated to making link
5		health of patients & visitors	provide the NHS with templates, bluepr	link between suppliers and Trusts	get health concerns into the l
6					NHS support the **economy** o
7		Economic benefits to region	bridge building (NHS and suppliers)	training for suppliers	recruitment and retention of p
8		Reduce foodmiles ('eating oil')	establish structures which can outlive t	establish needs of different actors an	getting people to work togeth
9		change purchasing ethos	increase NHS regional procurement in	the NW	NHS local procurement
10		to **link** suppliers with hospitals (go-between)			develop shared concerns amo
11		to facilitate establishment of new working arrangements			
12					
13	indirect aims				health benefits of economic g
14					
15	STRATEGY				
16	prioritisation & planning		trial and error	different for different Trusts - difficult t	timing, catching a wave
17		definition of 'local' needs to be flexible in Lon	identify location of influence and engage	with these (eg HUBs)	info from economic footprint c
18		supply chain with as few points on it as possible			
19		choice of sustainable suppliers is somewhat subjective - auditers own judgement but		existing marks (eg Leafmark) are used as guides	
20		integrated pest management, env stewardship, freerange are thought highly of			
21		no strict rules for choosing suppliers			
22					
23					
24					
25					
26	evaluation & ind	evidence of top-down commitment	currently traditional business indicators	GCC procurement section as benchm	numbers of people going thro
27		getting quota of participating Trusts	wouldn't know how to develop indicators	for social programmes like 'Big Life'	quantitative indicators alone r
28		focus on quality of food	financial savings may be possible but	may be indirect so difficult to measure	
29		evaluation for whole project as a whole using	NEF LM3 multiplier effect model (partially successful)		
30					
31					
32					
33					
34					
35	PRACTICE				
36	Project structure	SUSTAIN as a 'go-between' between supplie	externally funded (European healthclusternet) and RDA		regional NHS post in partners
37		SUSTAIN have v practical role in project doing much of the legwork to make these	new supplier arrangements work (suppl		ER's post for broader PH
38					Seconded post for health & s
39					
40					

Rangeofdefinitions | constraints&opps | skills&knowlgaps | Ideasforfuture

Figure 5.3 Storage of Phase 1 descriptions and observations using an Excel spreadsheet

Following the establishment of the coding structure itself, the second stage described is the retrieval and storage, from the transcripts of the chunks of interview sections, in a format consistent with the codes, which Miles and Huberman (*op cit*) call 'clustering' (p. 56). Here, sections of the transcripts were identified as fitting with each of the codes

developed above. Whilst custom-made soft-ware, designed for managing qualitative data, was used for the clustering exercises in Phase 2, this was not available in Phase 1. I therefore stored quotes separately, for each of the main categories, using a simple Word document, for each Interview Type, split into sections. Figure 5.2 illustrates what this looks like for Type 1, showing extracts from the categories of 'purpose' and 'strategy'. I also used Excel spreadsheets to summarise, in my own words, the key descriptions (relating to categories 1-3), and observations (relating to category 4) contained in these extracts. These summaries made it easier to begin to identify patterns emerging, and any contrasts between interview types, as is discussed in full, in Chapter 6. Figure 5.3 is a screenshot of the Excel spreadsheet.

5.2.7 Using Phase 1 to invite participation in Phase 2

The interview guides provided me with a prompt to explain to the interviewees the purpose of these interviews within the broader research project, and that I would be looking to recruit interested people, for Phase 2. I explained that there would be a gap due to my need to take maternity leave from the research, but that the study would recommence 12 months later. This was not ideal in terms of maintaining contact with them, but was a necessity of life. I sent all interviewees a summary of the interviews before this leave. Full analysis had not yet been carried out at this stage, but I wanted to send them some immediate feedback whilst the interviews were still fresh in their minds, and it was still likely to have some meaning to them. I also wanted to take this opportunity to tell them why there would be some months before the next Phase along with contact details should they want to get involved. This feedback is included in Appendix 4a, and provides my impressions relating to the four categories on which I based the interviews. In this feedback I used different terminology to describe these than the four categories which guided the interviews. In retrospect, I should have maintained consistency in terminology and I provide the translation between the two forms in the following list which shows the four headings used to feedback to participants, along with the interview guide terminology in brackets:

1) NHS involvement in SD (purpose)
2) Prioritisation based on knowledge of NHS impacts (strategy)
3) Methods of implementation (practice)
4) Addressing these challenges (reflections)

In this feedback, I also provided an indication of range of actors I had identified as being influential in the system, thereby beginning to suggest how, in the long-term, change would require conversations involving all of these.

Whilst no-one responded to this summary without prompting, on return from leave, I intended to make contact with all those who I thought had been most interested, to see what stage they were now at in their projects. I began with the interviewee from Project 1.5: a Public Health Development Manager from NHS Nottingham City, who had originally expressed most interest in Phase 2. This person gave me permission to provide her real name, Helen, had been involved in a range of initiatives broadly connected by the desire to improve public health through environmental improvements. We had a timely telephone conversation, in which I outlined the intentions for Phase 2, and some criteria I had developed for participating organizations (outlined in the summary of the proposal made for Co-operative Inquiry, below). Helen described how SD had gained additional momentum within her organization since the initial interview, and that there was support, including financial resources, for a centrally-led SD strategy. Helen's previous initiatives, whilst receiving national interest from policy-makers, had remained on the fringes of her own organization's priorities. However, the financial resources now allocated had to be spent within a few months, leading Helen to believe that the pressure of this deadline would make it relatively easy to set up a willing Co-operative Inquiry group of influential people, able to direct and implement SD strategy. It was therefore agreed that a potential group be convened for a proposal meeting, where I would present my invitation to participate, and the group could decide if this was appropriate for them at this time. Because a positive response resulted from this meeting, and because of the depth of study they agreed to undertake, I did not pursue any additional Co-operative Inquiry groups, as had been my original intention.

5.3 Phase 2

5.3.1 An overview

As introduced above, Phase 2 is concerned with integrating the 'conversational map', now strengthened through empirical study in Phase 1, with an organizational Action Research initiative with one organization. A group from NHS Nottingham City had agreed to take part. In Figure 5.4, I provide a summary of the design of this Phase, and the specific methods employed within it, which I describe in more detail below. Broadly, this comprised three cycles of Co-operative Inquiry in which I, as the outside Action Researcher, aimed to support the group in developing an understanding of their context

and purpose (diagnosis), deciding how they wanted to change this (planning), taking actions outside the group (actions), and reconvening to evaluate what had happened (evaluation). The aim of the 'conversational map' was specifically to aid diagnosis (identifying constraints), planning (identifying opportunities for change from within and outside of the organization), evaluation (why plan may or may not have gone as anticipated) and to reach an understanding of what this meant for the next cycle. The range of methods used included reflective interviews (used twice), facilitated group discussion (used throughout), storytelling (used for evaluations twice), developing group theory for dissemination outside the group (used once). In addition, some less formal liaison took place outside the group meetings, between myself and group members, as well as with others in the organization and beyond. This activity included email contacts and phone calls with group members and shadowing the work of the Project Lead. The details of all these methods are now described.

5.3.2 The proposal

I viewed the proposal as a communicative exercise in which it was necessary for me to outline what I intended to achieve. I had developed the theoretical framework which proposes what could be achieved with respect to change for SD within the NHS, through attention to increased theoretical understanding ('conversational map'), attention to group process (Co-operative Inquiry) and identification and enhancement of broader networks (communities of practice, and with actors of influence). For the purposes of this PhD, I needed to trial and develop these ideas with others. I believed that those practitioners faced with trying to implement NHS SD in real-life, could benefit from taking part in this enactment of the framework. They would receive some help in addressing the contextual challenges they were likely to face as I would be able to help them understand their challenges with respect to the ideas of the 'conversational map', with the potential that this may help them develop effective actions to overcome them. I also thought that the group learning processes I introduced through the Co-operative Inquiry and its external links would help them to develop the skills to continue with such a learning approach to their SD strategy, after the Co-operative Inquiry. In retrospect, I can see that these two ambitions were immense. The role of the Action Researcher outlined in the framework is one of educator at two levels. First, through enhancing theoretical awareness of the context, and second, through development of on-going learning skills.

I used a communication model by Torbert and Taylor (2008) to help plan the invitation to participate. I outline here how this helped me to develop my own openness of intention with the group, but it is also useful to aid later reflection on Action Research practice. By

outlining what I communicated with respect to the requirements of this communication model, I can reflect back on how the quality of this communication may have affected the outcomes of the group process. As well as helping me to plan the communication in a transparent format to the group itself, it also helps me to reflect on what I did, and did not communicate to the group at this stage. In short, it is a model which helps, both to plan AR practice, and to capture this practice in words, to aid later reflection. I believe it helps reveal much about what I did and did not communicate effectively, the reasons why this may have been the case, and how this influenced what happened, which I return to later in the Discussion (Chapter 8).

Torbert's model describes four parts of speech necessary to aid the change-oriented ethos of AR. Its purpose is to draw attention to how the format generally used in speech lacks clarity about intention for change, and the requirements for doing so, therefore rendering the theories-in-use which govern behaviour in a context, hidden and unchallenged. Conversely, it is possible to be clear about what is advocated, and the reason why whatever this is holds potential to effect desired change, through the model's four parts of speech, which are 'framing', 'advocating', 'illustrating' and 'inquiring' (Torbert and Taylor *ibid* p.244). I used this model to plan my communication with the group in the following ways.

'Framing'

For Torbert and Taylor (*ibid*), to 'frame' is to:

> explicitly state what the purpose is for the present occasion, what the dilemma is that you are trying to resolve, what assumptions you think you share or are not shared'(p.244).

In framing the invitation for Co-operative Inquiry to potential groups, I therefore summarised my theoretical understanding of the challenges and opportunities for progressing NHS SD. Informed by the 'conversational map', this comprises the comparisons and contrasts between espoused theories of NHS SD (what is proposed by policy and guidance), and the dominant paradigm, as a format for understanding the challenges and opportunities they are likely to face in practice. I explained how Phase 1 of my research had supported the idea that the experiences of enacting NHS SD could be explained in this way; why some aspects of NHS SD projects were easy to progress and others, which were more challenging to the dominant organizational paradigm, were more difficult to enact.

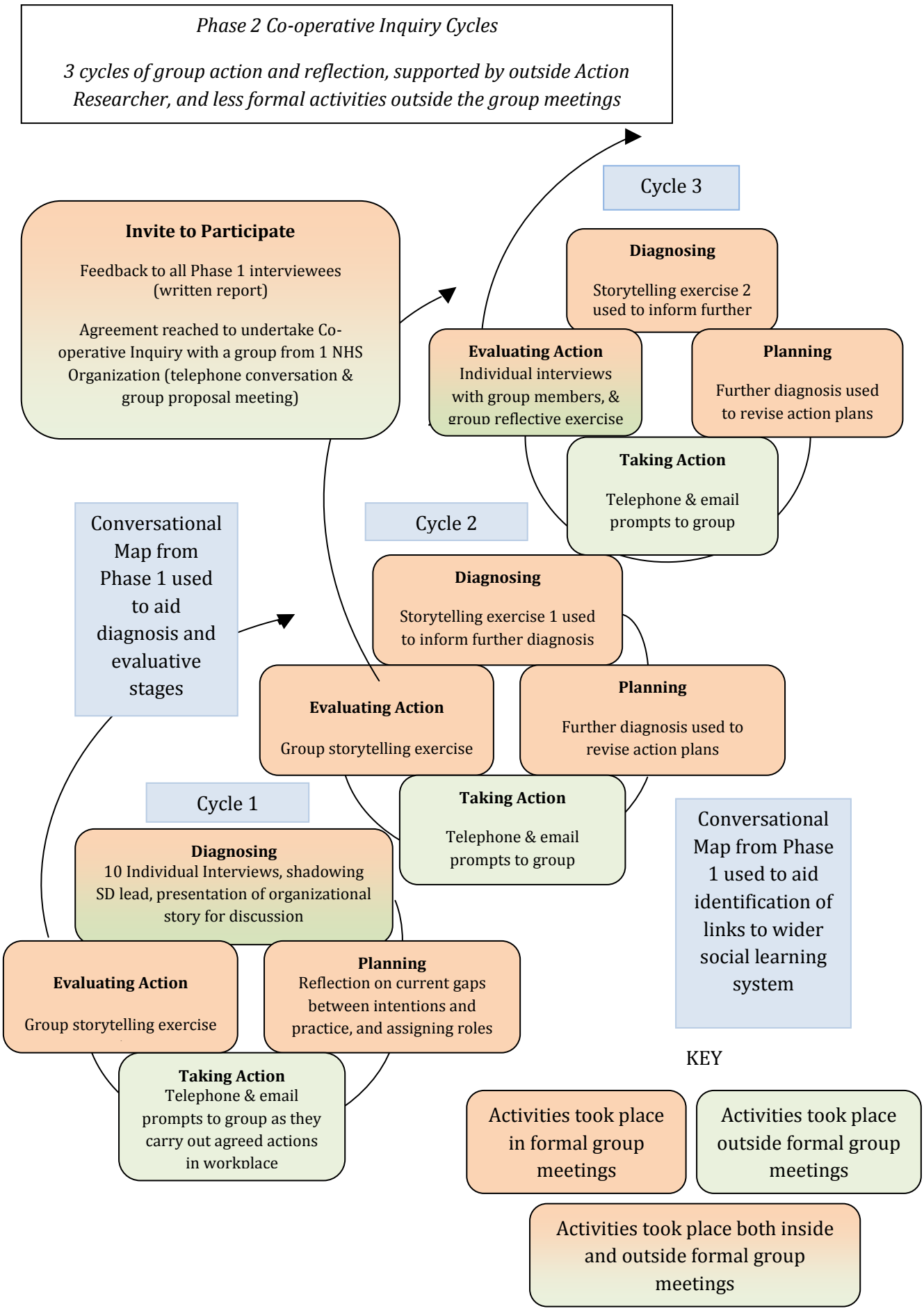


Figure 5.4 Overview of Phase 2

'Advocating'

For Torbert and Taylor (*ibid*), to 'advocate' is to:

> explicitly assert an opinion, perception, feeling or strategy for action in relatively abstract terms (p.244).

I therefore asserted that the Co-operative Inquiry process could help to address the more difficult aspects through increased understanding of the causes of the challenges, and through group process designed to address these where possible. I explained the three key principles of Co-operative Inquiry as (i) disciplined cycles of action and reflection, ii) development of a peer group and iii) the development of a self-reflective inquiry process which focuses on the process of collective learning in its own right, in addition to any intended outcomes of the group. I then outlined the generic AR cycle (from Coghlan and Brannick, 2005) of pre-step, diagnosis, action planning, actions and evaluation into which I propose that these principles can be placed. I presented the cycle in the format shown in Figure 5.5 to help explain what was being advocated, including the timescales involved. I presented the process as a single cycle at this stage, adding that there was scope for further cycles after this first one, if the group was finding the process useful, and was willing to continue.

'Illustrating'

For Torbert and Taylor (*ibid*), to 'illustrate' is to tell:

> a bit of a concrete story that puts meat on the bones of the story and therefore orients and motivates others more clearly (p.244).

At this stage of the communications, I referenced an example of a particular SD project that could generate a focus for critical reflection within an AR framework. I proposed sustainable procurement as one example of ambitions which may be difficult to progress, and gave an example of how they could use the AR cycle to plan a response to one or more of these challenges, carry out these responses and reconvene as a group to reflect on practice. I described how the results from Phase 1 (as are described in more detail in Chapter 6) had revealed that it was difficult for those working on the procurement of sustainable food to gain support for this work from their organizations. The 'conversational map' helps understand that this is at least partly because the organization does not currently have the structures in place to recognise the benefits to health of purchasing sustainably sourced food (e.g. local and produced in accordance with environmental and social specifications). However, within the espoused theories of NHS

SD, such justifications do exist. These are the systems-based models of health, and their associated frameworks for prioritization and measurement which are developing alongside within initiatives such as Healthy Settings.

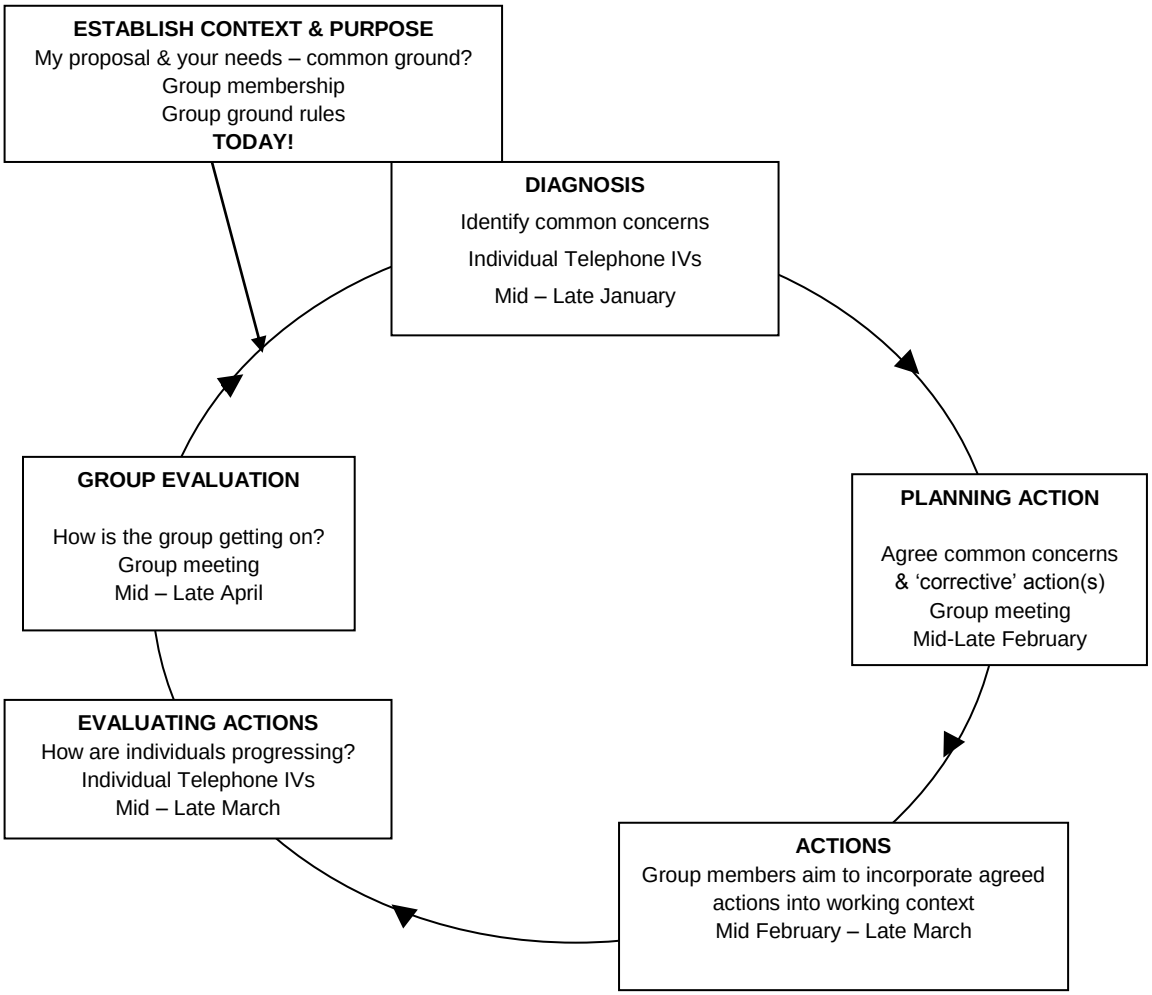


Figure 5.5 A proposal for Co-operative Inquiry

Through the processes of group reflection, it is possible to acknowledge the occurrence of these organizational constraints, and purposively seek ways to overcome them. In the two food projects included in Phase 1, practitioners were trying to contextualise one or more of these espoused frameworks: they were both drawing on a measurement technique called the LM3, developed by the New Economics Foundation (e.g. Sacks 2002). LM3, meaning the ability of money spent locally, through a local multiplier effect, to generate three times its amount in local wealth, has been used in these two food procurement projects to try and predict the potential economic gains from procuring local food. The AR framework as proposed, draws specific attention to the need to trial such innovative forms of measurement, if the espoused theories are to be progressed in

practice, and it also allows for recognition of what exactly is being trialled with a view to continued refinement. So, in this case, LM3 aimed to measure the economic benefits. This is just one element of the espoused theories of NHS SD, and the framework allows for recognition of the limits of whatever approach is taken, with a view to further enhancement when opportunities arise.

I drew on the framework to explain why innovative methods such as the use of LM3 within procurement projects were viewed so positively from those espousing theories of NHS SD. Such projects were winning awards, and were hailed as best practice by these central organizations. This says something about the hopes and aspirations that are placed with champions working in such initiatives. I proposed that people such as this group were being viewed as change agents on behalf of the NHS, tasked with exploring how SD can be progressed in practice, thereby hoping to inspire them to see their exploratory role within this process: to see that Co-operative Inquiry offered one way, albeit a small way, to support the change process which was demanded of them.

'Inquiring'

For Torbert and Taylor (2008), to 'inquire' is to 'question others, in order to learn something from them' (p.244). Whilst this sounds obvious, Torbert is suggesting that we often do not give adequate chance for true and honest responses, often because the previous parts of speech have not been carried out effectively either. So, to address this, I gave some specific criteria of what would be required in the proposed Co-operative Inquiry process so that the group could consider whether they could commit. I asked whether the group was able to commit to the following:

- A shared desire to progress espoused theories of NHS SD beyond the more narrow descriptions of ERM
- The shared acknowledgement that this was currently difficult
- An open and learning attitude
- Taking part in the cycles of Co-operative Inquiry through the formal meetings, and agreed actions outside of these
- A live project or initiative which could form the basis of the inquiry
- A group which contains members with ability to influence change and has the support of senior members of the organization

These criteria were contextual applications of the principles for Co-operative Inquiry as outlined in Chapter 4. The first four relate to the principle of a commitment to cycles of

action and reflection. This commitment is only likely to be present if there is already a desire for change and acknowledgement of current challenges. The fifth is a practical requirement on which to base the Co-operative reflective cycles. The final criterion responds to the belief that for Co-operative Inquiry cycles to be able to effect change, they require support from influential actors within the system in which they are situated. Following the proposal made to the potential group from NHS Nottingham City, it was agreed that they could meet these criteria. The nature of their agreed project for Co-operative Inquiry is detailed in Chapter 7.

5.3.3 The Co-operative Inquiry Cycles

Whilst not predetermined at the outset, three cycles of Co-operative Inquiry were carried out with the group, as summarised on Figure 5.4. Heron (1996) provides an overview of the different forms of co-operative inquiry which can be enacted in practice, and which, as described above in relation to Torbert's four parts of speech (Torbert and Taylor *ibid*), provides another means for capturing the AR process in words, to enable more conscious decision-making, as well as subsequent reflection. The overview draws attention to a number of distinguishing features of a Co-operative Inquiry group including how it was initiated. In this case, the group was initiated by me, as it arose from my own PhD inquiry. The people I invited to participate had no experience of Co-operative Inquiry, therefore the essence of the research purpose was to explore whether I could invite and establish a working group, using my theoretical framework as a guide. Heron also draws attention to the varying extents to which such Co-operative Inquiry is in fact co-operative. For the same reasons as why I initiated the group, the overall design as well as the methods used throughout, were also led by me. Group members would not have felt motivated or experienced enough to do this. The Co-operative Inquiry group can therefore be described as designed to be partially co-operative. I sought to engage them in the design of activities where possible once I had provided them with some broad ideas. E.g. I suggested interviews could help with the diagnostic stage, as outlined below, but sought their input regarding who to interview, how to conduct the interviews, and what questions to ask.

Heron (*ibid*) also draws attention to inquiry boundaries, referring to how restricted to make the topic of inquiry. In this case, the perspective being brought to the topic of NHS SD, by the 'conversational map', necessitated the viewing of the topic in its broad terms. So, the framework is there to help people to understand how the activities they may be engaged in, are influenced by the context, as portrayed in the 'conversational map'. It was therefore appropriate that the group engaged in what Heron calls an 'open' inquiry (*ibid* p. 44), into their actions as embedded in their working context, and not restricted to what

occurs between the existing group members. In terms of purpose of Co-operative Inquiry, Heron proposes that some forms are restricted to understanding a context, and some forms attempt to transform it. The perspective of knowledge outlined by the PRP, advocates pragmatic attempts to transform a context as the most effective form for improving understanding, hence the framework's proposal to incorporate understanding with transformatory purpose for group inquiry.

Finally, Heron distinguishes Co-operative Inquiry between those types which follow a linear, and highly planned format, which he terms 'Appollonian', and those which allow for more spontaneity and emergence which he terms 'Dionysian' (*ibid* p.45). The framework I use proposes that an Action Researcher seeks a middle ground between the two. So, in order to guide the facilitation process, broad frameworks such as the AR organizational development cycle are followed. This is particularly useful when AR is new, to both the researcher, and to the group, as it aids communication and learning about what is being trialled. However, if the principles of knowledge as a participatory and social process are followed, then specific details within the cycle must be allowed to emerge, with one stage informing the next.

It was by using the combination of these two approaches (Apollonian and Dionysian) that the specific methods were chosen and developed within the three Co-operative Inquiry cycles. I now describe the collection of methods which were used within the cycles, and how, in general terms, they were used to fulfil the ambitions of the AR framework for purposive, analogous theory-building. Whilst each played a different specific role within the cycles, they were each broadly employed to help people to answer the following questions:

- What are you currently doing?
- What would you like to do differently?
- How can you do things differently?

The rationale behind the specific application of these methods relates to what actually occurred in the cycles. Because one stage of the Co-operative Inquiry informed the next, this rationale is described in relation to the story of the cycles told in Chapter 7.

5.3.3.1 Reflective Interviews for diagnosis & evaluation

Similar in ethos, and even in structure to those carried out in Phase 1, reflective interviews, informed by Roth and Bradbury (2008), were used within the Co-operative Inquiry in two places. The first instance was within the diagnostic exercise in Cycle 1.

Here the purpose was for me to gain a picture of the current approach to SD taken by their strategy, in a format that I could use to help them reflect on the gap between current and desired practice, and plan responses accordingly. Just as in Phase 1, interviews were of a semi-structured format, based on the categories of the 'conversational map', and I developed short interview guides summarising the questions suitable for the different respondents I was including. 12 interviews were carried out with representatives from different actor groups involved in some form, within the organization's SD strategy. The interviews, including the interview guides used, are described in full in Chapter 7. As well as for diagnosis, interviews were also carried out at the evaluation stage, with group members only. Once again, these evaluative interviews were designed to be reflective, but in addition to considering the SD strategy, were also more explicitly aimed at critically considering the process of Co-operative Inquiry which had been undertaken. I provided my own evaluation as the basis for this discussion, again indicating the lead role I continued to play within this Co-operative Inquiry, right through to the end.

5.3.3.2 Facilitated group discussion and action planning

The principles of Co-operative Inquiry demand that people develop openness within group meetings about their feelings, hopes and aspirations, in order that these may be capitalised on, to broaden and revise theories-in-use. In order to set such a tone of openness and honesty within group meetings, I paid attention to how these meetings began each time. I encouraged all members to open up early on. The simplest was to ask everyone to start session by summarising what was currently on their minds, as this would likely impact on how they would approach the group meeting itself. Once, I used a specific method for this opening, which is described with respect to such group meetings by McGill and Beaty as 'trauma, trivia, joy' (1995 p. 109). In this exercise, each member is asked to describe three incidents they have been involved in within recent days, which could be described (loosely) as a trauma, a trivia, and a joy. My intention with trialling this method, was to help facilitate a different mood to that which group members would be used to within their normal meeting scenarios.

In addition to opening meetings with a spirit of openness, and hopefully empathy between group members through knowing something of each-other's thoughts and feelings, which they would not normally know, I also developed methods for assisting participation throughout meetings. At various times, the group was required to discuss potential courses of action. I used visual aids to capture everyone's input into discussions (e.g. flip chart records of group members' suggestions), so that everyone's ideas were given a voice. I always encouraged all members to define a role for themselves, and never left sessions

before we had names assigned to tasks, sending a meeting summary of agreed tasks to all members after the meetings, by email.

5.3.3.3 Storytelling

Informed by the 'story-dialogue' method of Labonte et al (1999), group members were asked to recount their experiences within evaluative stages of the cycles, by providing answers to the specific questions shown in Table 5.6.

'***What happened***?' - describe what happened from own point of view
'***Why do you think it happened?***' - try to explain why it turned out as it did
'So what?' – synthesise this experience into some new understanding of the context
'Now what?' – decide what can be done to address what has been learnt

Table 5.6 A guide to storytelling (adapted from Labonte et al 1999, pp. 44-45)

As Labonte et al (1999) explain, the story-dialogue technique is appropriate in organizational development contexts, because it is designed to generate new knowledge about what happens in organizations and from these insights, decide on responsive actions. Whilst not drawing specifically on Labonte's format of prompts, Reason and Hawkins (1988) also champion the value of such a rich form of evaluation, which they call storytelling, within Co-operative Inquiry, explaining that it has the potential to allow deeper expression of group members' experiences, than is usually afforded within meetings when action plans are reviewed. If people respond well and engage in honest expression of their experiences, not only can a more complex story to be told, but this can also contribute to the process of building trust and understanding amongst the group as people are prompted to be more open than they are likely otherwise to be. Storytelling as a method of evaluation has also been described as a suitable strategy for SD initiatives in general. Bell and Morse (2007) describe its place in understanding and directing the experience of SD projects so that they are viewed more as ongoing reflective processes, than one-off initiatives to be evaluated at the end of their life. In their view, if SD projects are going to progress beyond the dominant mindset of short-termism and value for money, there needs to be attention paid to contrasting versions of how SD might develop, and such contrasting versions can be illuminated by listening to the experiences (ambitions, challenges and opportunities) of those who try to implement them.

Informed by these ambitions, each group member was given the chance to tell their story. I provided group members with these prompt questions before they came to meetings, so they had chance to prepare. As is evident within Labonte's story-dialogue method, everyone was also asked to listen to the stories of others as they recounted them, and reflect on what each story meant to them, and whether or not it resonated with their own.

Following the individual stories, the same prompts were then used to try to capture a generalised group story. To achieve this, everyone was asked to note down generalised ideas whilst listening to the individual stories, and then to feed them into a group dialogue which followed. Storytelling was used twice for evaluative purposes within the cycles, as is shown on Figure 5.4.

5.3.3.4 An exercise to develop group theory

As is explained in more detail in Chapter 7, I facilitated an evaluative exercise in the final group session, designed to capture the group's shared impressions of the learning they had undertaken throughout, in order to share with others. This concerned what they had learnt about what was involved in SD strategy itself (contextual inquiry), as well as what they had learnt about the process they had experienced (meta-inquiry). This was important, as I had developed my own theories in relation to both of these levels which built on the theoretical framework I had started with, and I wanted to ascertain the extent to which these were shared with the group. In order to achieve this, I provided a draft briefing paper on behalf of the group, for the NHS Sustainable Development Unit (SDU). This gave the exercise a specific purpose; through liaison with the SDU which I had instigated throughout, we had been asked by one of their policy makers for our group's feedback, which we were told would be used to inform the development of an NHS Organizational Change Strategy which they were in the process of developing at this time. Following their publication of NHS Carbon Reduction Strategy (SDU *op cit*) which concerned the topics of importance for NHS Trusts, they had recently become interested in the processes of organizational change involved in achieving this. Their policy maker informed us that our Co-operative Inquiry was a timely example which they could draw upon in this Strategy. The briefing paper I drafted contained a summary of what I felt were likely to be typical objectives of an NHS organization's SD strategy as well as the learning processes which we had found helpful in achieving these. I facilitated a participatory exercise where I asked each group member to take one aspect of this proposal which they felt particularly related to our group's experience, or to suggest something of their own if they preferred, and to explain their choice, and then for the group as a whole to comment on those aspects which had been chosen. The briefing paper was therefore, whilst strongly led by me, influenced by what the group considered to be important. It is included as Appendix 5. This method arose out of the links we had made with the SDU, as well as my own theoretical ideas which developed as the group work progressed.

5.3.3.5 Other methods

As well as these methods which I had planned, and read about before-hand, I found myself needing to develop other, less formal methods as required. The reasons for these are described with reference to the account of the cycles provided in Chapter 7, but in summary, they comprised informal discussions with the principle contact I had with the Co-operative Inquiry group (Helen), as well as shadowing some meetings she attended. I also had informal discussions with those policy makers potentially able to support the development of Communities of Practice, which was primarily the SDU. In addition, as various opportunities for developing capacity to support learning for SD across the organization arose, I offered to help articulate these ambitions on behalf of the group. Finally, I engaged in, and still engage in, ongoing dialogue with Helen, on how the ethos of ongoing reflection on action which we developed within the Co-operative Inquiry, can be fostered in the changing NHS context, now that the formal group no longer meets.

5.3.4 Analysis of the cycles

Because the aim of the Co-operative Inquiry is for iterative cycles of action and reflection, where one stage influences the next, analysis took place at two levels with respect to the methods outlined above. The first level occurred within the cycles themselves. By this I mean that I aimed to continually aid group interpretation of their experiences throughout, in what has been called on-line hypothesis testing which Schein (2008) describes as:

> the constant forming and testing of hypotheses and expectations about what we will see and "hear" next, especially after we have immediately intervened by saying or doing something (*ibid* p. 276).

This was achieved through fairly quick analysis of all co-operative inquiry activities. For example, the feedback of the diagnostic and evaluative interviews provided to the group, was not the result of full analysis of interview transcripts, as had been the case in Phase 1 interviews. Instead, I purposively listened and re-listened to interview recordings, noting responses to questions I had included in the short interview guides used. Much of the on-line analysis took place by the group within the participatory exercises themselves, so that at the end of each exercise, there was a sense of what had been learnt and revised. In addition to on-line feedback, I undertook more in-depth analysis of the context and process of co-operative cycles, in enough depth to inform this written thesis. So, in the same way that coding was used to analyse Phase 1 interviews, I tried to capture as many aspects of cycles as possible in words, which could also be analysed through coding. Because of the volume of information which arose from these cycles, I was pleased to gain access to the qualitative analysis software NVIVO. As described by Bazeley (2007), NVIVO

assists the coding process, and allows storage of coded data in a format which can be efficiently retrieved for the thesis. The same coding structure was used in Phase 2 as that used in Phase 1, but it was just a more in-depth, more participatory form of the exploration of the framework. Here, I include a screenshot which illustrates how the coding structure is stored in NVivo.

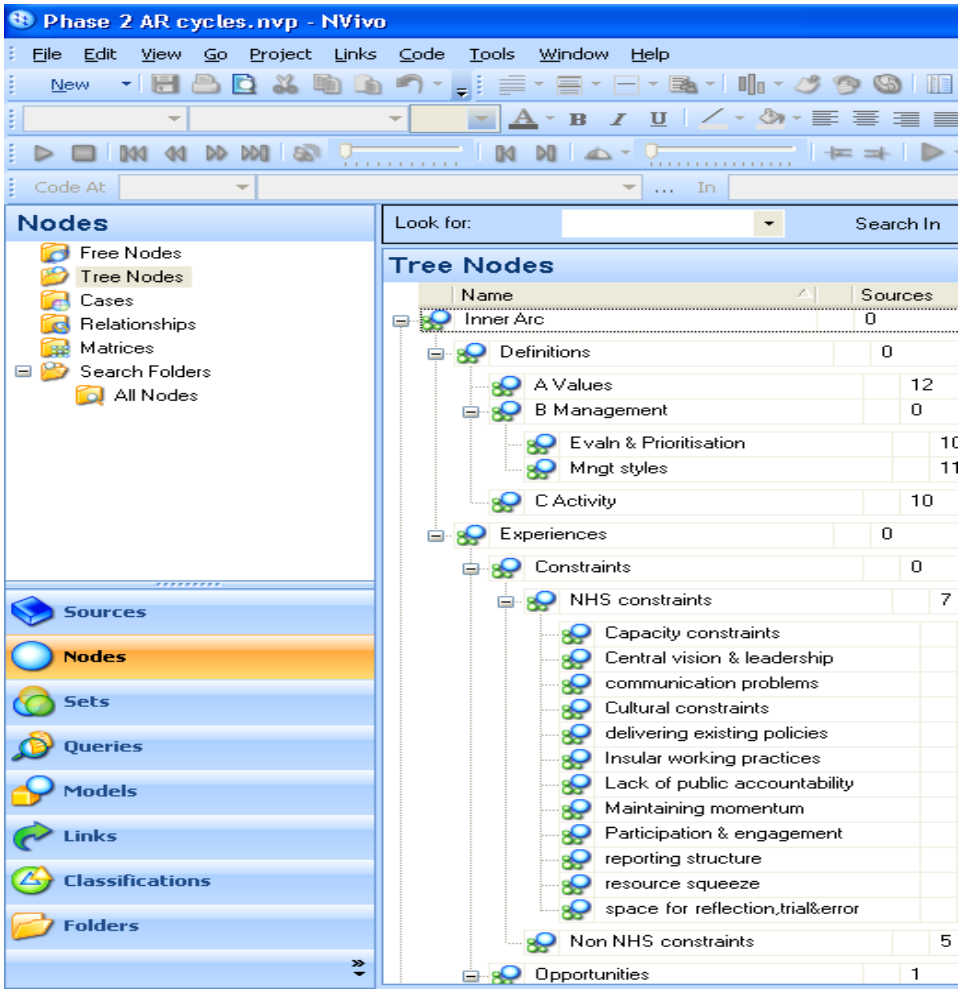


Figure 5.6 An illustration of the coding structure organized in NVivo

Figure 5.6 illustrates the codes I created in NVIVO in order to categorize sections of the transcripts. It shows how I split these first into two broad categories; definitions and experiences. Then each of these was broken down further in line with the format of the 'conversational map'. The definition category was broken down into those pieces of text which referred to values (purpose), management (strategy) and activity (practice). Sub-categories relating to these were developed as I analysed the transcripts, but were also guided by the map. E.g. there were sub-categories within the 'Management' category for 'evaluation and prioritisation' as I found these were usually discussed together, and for management styles. Within the broad category of 'Experiences' were two sub-categories of 'Constraints' and 'Opportunities' which were set up at the outset because of the need to

understand paradigm tensions. Within these however, I added a number of different sub-categories through analysis.

5.4 Capturing the meta-cycle through a personal journal

Alongside the enactment of the framework itself through Phases 1 and 2, as described in this Chapter, and the processes of recording and analysing these experiences, I also kept a personal journal to assist a process of reflection on my own practice. Just as the analysis of methods described above served a dual purpose of feedback within the cycles, as well as allowing for the in-depth analysis required for the thesis, so the journaling also served both roles. It served to inform development of practice within the cycles, and also provides evidence to assist the development of more generalised understanding about my practice, for this thesis.

The development of reflective capacity by Action Researchers has been helpfully described by McNiff (2003) as an essential part of developing research practice. She states that:

> as people enquire into their work and imagine ways in which it could be better, they generate their personal theories of practice (p. 7).

This helps us to understand that the role of keeping a journal is to help understand what these personal theories of practice are, the influence they have on current practice, and how these can be revised to make practice more effective. Coghlan and Brannick (2005) summarise the guidance which exists on how to make the process of journaling effective for this purpose. They cite McNiff et al (1996) in suggesting a number of different aspects which should be included in the process, such as the systematic recording of events (facts), and the researcher's own interpretation of these events, as they occur. In McNiff's guidance, journals can be an important 'dump' for the researcher's own difficult emotions as they arise through the process. Coghlan and Brannick (*op cit*) also draw on Kolb's experiential learning cycle (Kolb 1984) to propose that attempts should be made to conceptualize these interpretations in relation to relevant theoretical frameworks, finally suggesting ways in which revised behaviour can be enacted within similar situations in the future.

My own journal was influenced by this guidance. I used it to record key interactions with the Co-operative Inquiry group, thus ensuring I had a record of the factual information about what took place, and when. This was recorded systematically on what I called Visit Summary sheets (see Appendix 6) which contained the headings of 'date', 'purpose of visit', 'brief description', 'invitees', 'outline of visit including timings for what happened'. I also used it to 'dump' what were often intense feelings before and after group work stages

of the cycle. I found this 'dumping' enabled me to make sense of the feelings beforehand, which were often related to what I hoped would happen within the subsequent session, as well as the feelings after, which were often related to how things did not quite go as planned. Through journaling, I was able to identify my intentions, by reflecting on the feelings I described in relation to what happened. I began my journal by outlining specific headings and rules in the hope that this would ensure I was disciplined enough to record, interpret and analyze my reflections in as much detail as I required for Action Research. However, I found these headings very restrictive, and found the journaling to be much more effective when I just kept broad prompt questions in mind, letting my interpretations flow as required. Just as all the methods listed above were led, in broad terms by the three questions which aim to develop purposive, analogous theories-of-action, so I directed similar questions at myself within this process. These were:

- What intentions are currently evident in my research activity?
- What intentions would I like to be evident within my research activity (as espoused by the framework I have proposed)?
- How can I do things differently?

Using these questions as prompts, I could begin to interpret the intense feelings and impressions I recorded before and after interactions with the group, and use these to try to plan how I would respond with revised practice in subsequent interactions.

6 Results of Phase 1

6.1 Introduction

As detailed in Chapter 5, Phase 1 is concerned with ensuring that the application of the 'conversational map' provided in Chapter 4 (Figure 4.6), as derived from a document review of context, is useful for understanding the experiences of NHS SD initiatives. It is also a means of opening lines of communication with those involved in NHS SD, with a view to participation in Phase 2. This Chapter documents the results and the interpretations of this Phase.

As a reminder, the purpose of the 'conversational map' is to provide guidance on the likely nature of an emerging organizational paradigm of NHS SD. The document review of context allowed me to identify two distinct aspects in this respect: Sustainable Development as Public Health (SD as PH), and Environmental Resource Management (ERM). The purpose, strategic models, and practices which comprise these two aspects are contrasted in the map with each other, but also with the dominant organizational paradigm for the NHS. This leads to the proposition that progressing SD as PH is likely to be more challenging than progressing broad interpretations of ERM (over and above tangible cost efficiency and compliance), because its espoused theories are based on social-ecological models of health. These are likely to be at odds with those of the organizational paradigm which currently dominates, and are likely to support a version of health derived from a medical model of health. I proposed that it should be possible for current projects to be mapped according to their purpose, strategic models, and practices in order to help understand the challenges and opportunities they face as related to the ways they challenge the dominant paradigm.

This Chapter summarises the results of 15 interviews carried out and analysed with Project Leads from inside the NHS (Type 1), Project Leads from outside the NHS (Type 2), and Policy Leads from national organizations (Type 3). I provide an overview of the categories into which I place each of the Type 1 and Type 2 projects, according to whether they attempt SD as PH, or ERM, and the nature of these differences. The details of these differences can be used to further develop the 'conversational map' from the theoretical propositions (many of them tentative), from which it originates. I propose that this process of definition is an important first step in understanding the different opportunities and challenges apparent in projects with different purposes, and in different contexts, therefore informing an understanding of how these can be progressed further, and who

would need to be involved in order to do so. The responses from Type 3 interviews are integrated into this analysis as a means of understanding further what is intended in policy and guidance. I reflect on what this means for the relevance of such an AR process as that proposed in the framework (Figure 4.5) to progressing SD in the NHS, and how this enhanced understanding helps me as an Action Researcher feel equipped to guide research in Phase 2. I discuss how the findings from this Phase can be used specifically in relation to developing Project 1.5 (public health and environment) through the AR framework. I conclude the Chapter with a summary of the key findings from Phase 1.

6.2 Defining NHS Sustainable Development projects with the 'conversational map'

In this section I aim to provide an overview of the patterns which can be identified with respect to project definition. I begin with the two broad categories: ERM, and SD as PH, and place all projects into one or the other of these. I then describe what the differences between the categories are, highlighting patterns of emphasis which were not evident from the theoretical map alone. This detailed definition is then used to inform the more analytical section which follows.

6.2.1 Placing projects into Category 1 (ERM) and Category 2 (SD as PH)

Based on the espoused theories of SD in the NHS (i.e. the theories implicit within NHS SD policy and guidance), the 'conversational map' suggests that two categories of project could be evident: those which try to enact systems-based theories of SD as PH, and those which try to enact ERM. As described in Chapter 5, all interviewees were asked about the purposes, strategic models, and practices which comprised their own projects. They were not asked about their own personal interpretations of these parameters within the first three questions. I propose that their responses reveal that these two categories of project are broadly evident. Tables 6.1 and 6.2 summarise how I have placed the projects into the two categories, which I explain in more detail in the accompanying text.

Category 1: ERM 1.1 (renewable energy), 1.2 (renewable energy), 1.6 (energy, waste, transport)	
Paradigm Domain	**Supporting Quotes**
ERM as purpose	'If you're saving money that's really the key aim' (1.1) 'the driver is cost reduction and reduction of risk' (1.2) 'we've tried to hit the...big three for the NHS: the energy, the waste and the transport issues' (1.6)
Linear strategic model	'we had to sell that to the Chief Executive and Directors and Non-executive Directors but based on our business case which as I say, was done by our finance director and a colleague, we sold the deal to them' (1.1) '(the) exponential increase in the gas price happened last year when we saw the highest gas prices we had ever seen....at which point I was given permission and some money to write a specification and to tender the opportunity to provide an alternative heating method to the organization here' (1.2) 'it's building on the thing of compliance with legislation, and obviously the key requirement there, the fact that the continual environmental improvement, you know if we put the system in, you know we are going to achieve those improvements' (1.6)
Transmissive style for core project aim, with emerging efforts to promote transformational style of activity	'there wasn't really a lot of involvement from anyone else in the Trust….in terms of actually dealing with other organizations either in production of energy or use of energy, no we haven't done that' (1.1) 'what I'm hoping to do is stimulate people to think more laterally' (1.2) 'and I think you know just trying to make that link between healthy living, healthy environment and that's something we try to link in, with this Healthy Living Day that we have here at the Trust' (1.6)

Table 6.1 Projects categorized as ERM

Category 2: SD as PH 1.3 (service re-development), 1.4 (service re-development), 1.5 (public health and environment), 1.7 (food procurement), 2.1 (food procurement), 2.2 (procurement), 2.3 (recruitment), 2.4 (meat procurement)	
Paradigm Domain	**Supporting Quotes**
SD as PH as purpose	'if you're investing that amount of money in health infrastructure....(the project) should have a wider social economic impact' (1.3) 'this is going to be a major investment and we'd like to be able to capitalise on that..in terms of what it can bring into Salford' (1.4) 'promote good health by strategically identifying & addressing environmental causes of ill health & health inequalities across the PCT (primary care trust) areas'(1.5) 'local sustainable development, so buying local food, minimizing the environmental impact, and....benefiting the economy of Cornwall' (1.7) 'aims to increase the amount of local & organic food... to hopefully improve the health of patients, staff & visitors within the project, but then also to assist...local economies within the region' (2.1) 'we came into this very clearly thinking...we're gonna link SMEs (Small Medium Enterprises) with NHS spend...we're gonna get them exchanging contracts and talking together' (2.2) ' increase the proportion of people from…deprived backgrounds…who got into …employment in the NHS and in social care, recognising that these people were perhaps not so immediately job ready as other more educated and people from less deprived communities might be…'(2.3) 'our objective was to get Welsh beef on the menu of all our Trusts without incurring additional cost to the NHS' (2.4)
Emerging Complex Strategic Models: Locally-led prioritisation Complex measurement	'the subsidiary target which is important to us is the diversity target which is around the employment of Bangladeshis' (1.3) 'the GDP of Cornwall is less than 75% of the European average....tourism....the catering department within the NHS isn't seasonal....so we could have a real impact if we took our £1.5m budget and plugged it straight into the Cornish economy, benefiting all the farmers and all the people working within the food industry' (1.7) 'it is a problem measuring health outcomes, but that's why I think it's so important for us to develop the thinking on sustainability and health and that's why I'm so keen to work with…other professions…to work out how do you measure the impact of our work? And what is the most effective use of time?(1.5) 'It's a bit of a start (LM3[6]) because we have got to have some sort of evidence to carry on with the SD arguments and the wider benefits.' (2.2)
Transform-ative style of activity	'we came into this very clearly thinking right, we're gonna link SMEs with NHS spend and you know, we're gonna get them exchanging contracts and talking together.' (2.2) 'The important thing about it was developing it in partnership rather than 1 organization taking a lead and developing it so far and saying 'what do you think of this?' cos I think you lose some of the opportunity for partnership thinking rather than just consultation.' (1.5)

Table 6.2 Projects categorized as SD as PH

[6] LM3: 'Local Multiplier Effect' model (Sacks 2002)

6.2.2 Differences in project purpose by Category

6.2.2.1 Category 1: seek cost-saving and compliance

In Category 1, projects are concerned with a relatively narrow interpretation of NHS SD, based mainly on the efficient use of internal organizational resources. Projects which I have placed in this category are 1.1: a renewable energy project in which a wind turbine was installed to serve the electricity needs of a large hospital in Northern Ireland, 1.2: a renewable energy project in which a feasibility study for the installation of a biomass boiler in a large hospital in Cornwall was carried out, and 1.6: a combined strategy for waste, energy, and transport has been developed for a hospital Trust in Wales. Responses indicate that projects in this Category are supported by a rationale limited to cost-saving, risk management, and compliance with organizational policy, although the emphasis does differ between these three. Cost-saving as a rationale is the most clear rationale evident in Projects 1.1 and 1.2:

> If you're saving money that's really the key aim (1.1 renewable energy)

> the driver is cost reduction and reduction of risk. The things they're going to get out of this in the long term….well they're going to get emissions, they need cost reduction, if cost reduction isn't there it won't happen (1.2 renewable energy)

Within Project 1.6, compliance with organizational directives is a bigger driver:

> recently we had a directive from the Welsh Assembly Government to implement an Environmental Management System and that went out to all Trusts in Wales and we had a deadline set….we have to comply with directives from Welsh Assembly so if that comes down and says OK you've got to put an EMS in, we've got to do it (1.6 energy, waste, transport)

6.2.2.2 Category 1: a step towards Category 2?

There was some evidence that whilst the current concerns of projects in Category 1 were clearly focused on internal resource efficiency, Project Leads were aware of greater potential, and sought opportunities to broaden scope where possible. Project Lead 1.2 (renewable energy) recognised that he worked in this style at present, but that he sought every opportunity in inviting engagement from those who did not normally perceive this as their area of interest, recognising that there was great opportunity for working in more creative and collaborative ways in the future:

> In terms of the day-to-day, the scheme you've heard about is about cost-saving....in terms of my strategy my medium and long-term, I am starting to talk to the Directors of Public Health (1.2 renewable energy).

> My job is about short-term energy management but actually the real key to making a difference in this area is to think long-term (1.2 renewable energy).

Even though Project 1.6 (energy, waste, transport) focused on ERM, some reference was made to this being part of a bigger agenda and the opportunity of a Healthy Living Day within the organization was regularly used to raise awareness of this link:

> ..and I think you know just trying to make that link between healthy living, healthy environment and that's something we try to link in, with this Healthy Living Day that we have here at the Trust (1.6 energy, waste, transport).

6.2.2.3 Category 2: seek to influence outside the organization

Projects which I have placed in Category 2 have a different purpose. Within this Category, I place projects from Type 1: 1.3 (service re-development), 1.4 (service re-development), 1.5 (public health and environment), 1.7 (food procurement), and all Type 2 projects: 2.1 (food procurement), 2.2 (procurement), 2.3 (recruitment), 2.4 (meat procurement). The most clear distinction between these projects and those in Category 1 is that these are concerned with influences outside of the organization. Conversely, whilst those in Category 1 were resourced by the NHS, these projects involve many partners with interests and resources outside the NHS. In Category 2, two Type 1 projects (1.3 and 1.4) aim to contribute to social, economic and environmental determinants of health through major investment taking place within service redevelopment in London and Salford respectively, specifically, the physical building of new hospitals and healthcare services. Project Leads are tasked with ensuring that significant sums of money to be spent within this re-development target these determinants of health:

> Basically because if you're investing that amount of money in health infrastructure, the general thinking was, particularly in relation to the Whitechapel side, (the project) should have a wider social economic impact (1.3 service re-development).

> This is going to be a major investment and we'd like to be able to capitalise on that investment in terms of what it can bring into Salford (1.4 service re-development).

In a similar vein, a sustainable food project led by NHS staff in Cornwall aims to use the development of a new catering service for the NHS in the county, to achieve a re-design of the food chain supplying the hospital, as well as the production methods used, to ensure that the local community, as well as the environment, benefits through support for more local suppliers, employment of local people in food production, and sustainable features incorporated in building and service design:

> (the aim is for...) local Sustainable Developmentso buying local food, minimizing the environmental impact, and sort of benefiting the economy of Cornwall (1.7 food procurement)

Project 1.5 is unique within this group of Type 1 projects. It is an internally-led NHS project aimed at supporting initiatives which enhance PH through SD. It is not concerned

so much with the integration of these concepts into other activity, but it aims to address these as primary, and to:

> ...promote good health by strategically identifying & addressing environmental causes of ill health & health inequalities across the PCT (primary care trust) areas (1.5 public health and environment)

All Type 2 projects are included in Category 2. Three of them are concerned with directing NHS spend to the local supply chain, with a view to benefiting the local economy and supporting local suppliers. Project 2.1 is a food procurement project for the London area, initiated by the environmental charity, 'Sustain'[7] and supported by the Soil Association[8], therefore providing agricultural, economic, as well as environmental objectives:

> (it) aims to increase the amount of local & organic food but within that, to hopefully improve the health of patients, staff & visitors within the project, but then also to assist sort of local economies within the region (2.1 food procurement)

Project 2.2 is a supply chain project for the North West region of England, initiated by the environmental charity, Groundwork, which had the main aim of increasing the amount of spend by the NHS within the region, through training and guidance both for suppliers, and to the NHS procurement teams:

> We came into this very clearly thinking right, we're gonna link SMEs with NHS spend, and you know, we're gonna get them exchanging contracts and talking together (2.2 procurement)

Project 2.4 is a procurement project run by the Welsh NHS procurement agency, to support individual Trusts in their procurement of Welsh meat:

> our objective was to get Welsh beef on the menu in all our Trusts without incurring additional cost to the NHS (2.4 procurement)

The remaining Type 2 project within this Category, 2.3, was also concerned with contributing to local economic conditions, but specifically through employment initiatives with the NHS, and this was run by the Regional Strategic Health Authority. It aimed to:

> increase the proportion of people from...um deprived backgrounds...who got into ...employment in the NHS and in social care, recognising that these people were perhaps not so immediately job ready as other more educated and people from less deprived communities might be...(2.3 employment)

[7] Sustain: A membership organization with an interest in the promotion of sustainable food and farming (www.sustainweb.org)

[8] Soil Association: A membership charity with an interest in the promotion of sustainable food and farming (www.soilassociation.org)

6.2.3 Differences in project strategy and practice by Category

6.2.3.1 Category 1: linear models for pre-determined outcomes

In Category 1, the strategic models employed can be described as predominantly linear. In each of the three projects, a business case is made by Project Leads to their organizational management, based on finances, risk management or compliance, where the anticipated benefits of supporting the project are clearly outlined. The financial case made in Project 1.1(renewable energy) is illustrated by this quote:

> We had to sell that to the Chief Executive and Directors and Non-executive Directors but based on our business case which as I say was done by our Finance Director and another colleague, we sold the deal to them (1.1 renewable energy)

The case made in Project 1.2 (renewable energy) is a good example of how the notion of organizational risk was employed. This project is concerned with identifying a local energy source whose price is not susceptible to escalating costs associated with non-renewable sources such as gas, which currently supplies the hospital. An unstable year of gas prices helped the Project Lead to make this case:

> (the) exponential increase in the gas price happened last year when we saw the highest gas prices we had ever seen….at which point I was given permission and some money to write a specification and to tender the opportunity to provide an alternative heating method to the organization here' (1.2 renewable energy)

Project 1.6 (energy, waste, transport) provides an example of where compliance was a central rationale. There appear to be well-established directives for the Welsh context of which it is part, for progress in the areas of resource efficiency, and compliance with these appears at least as important as the need to promise cost savings, for this Project:

> ...recently we had a directive from the Welsh Assembly Government to implement an Environmental Management System and that went out to all Trusts in Wales and we had a deadline set….we have to comply with directives from Welsh Assembly so if that comes down and says OK you've got to put an EMS in, we've got to do it (1.6 energy, waste, transport)

This was also partially evident within Project 1.1:

> The hospital had embarked on ISO 14001[9] accreditation….and one of the issues then was that we could improve our electricity consumption, reduction in CO2 by doing the wind turbine so again, that was a mechanism for justifying it along those lines as well (1.1 renewable energy)

[9] ISO 14001 Internationally recognised standard for Environmental Management administered by the National Standards Body of the UK (BSI) www.bsigroup.com

6.2.3.2 Category 2: complex models for un-determined outcomes

In Category 2 projects, the strategic model was very different. The three Type 1 projects included in this Category appear similar in their strategic approaches, each tapping into knowledge of local priorities to help guide their own priorities. All three geographical areas have recognised social and economic problems, therefore placing certain expectations on the projects:

> From the Whitechapel side, the Royal London Hospital, obviously it's in a particularly poor part of the UK, with the London Borough of Tower Hamlets with very high levels of deprivation. Tower Hamlets is the worse borough in the country in terms of the index of deprivation (1.3 service re-development)

> The subsidiary target which is important to us is a diversity target which is around the employment of Bangladeshis (1.3 service re-development)

> I think we were talking about something like £90m or £100m so you know...if there was investment of that nature happening in the City, and it is quite a deprived area, well there are obviously mixed areas of quite high deprivation and some more prosperous areas of the city, we knew we should be able to do something additional through that investment (1.4 service re-development)

> The GDP of Cornwall is less than 75% of the European average...we are poor region within Europe....Cornwall is really struggling, you know tourism....and the catering department within the NHS isn't seasonal, it doesn't have seasonal variation, it's just flat out 365 days a year, so we could have a real impact if we took our £1.5m budget and plugged it straight into the Cornish economy, benefiting all the farmers, and all of the people working within the food industry (1.7 food procurement)

The more specific process for prioritization within these broad objectives followed a different format in each of these three projects, although in each case, it was clearly guided by interests outside of the organization. In 1.4 (service re-development) some financial resources were provided by the North West Regional Development Agency, to pay for consultants to help with the prioritization exercise. In 1.7 (food procurement), financial support was provided by European Economic Regeneration funding allocated to Cornwall, termed 'Objective 1' funding[10], which therefore set economic indicators of success for the project. In 1.3 (service re-development), an independent advisory group called the London Health Commission[11], was given the task of assisting the development of a Sustainability Index against which the project's progress could be measured. The external help provided has been necessary to develop these priorities:

[10] Objective 1 Funding: Funding provided by the European Union to areas throughout Europe with GDP less than 75% of national average.

[11] London Health Commission: a partnership of agencies 'working to reduce health inequalities and improve health and well being of Londoners' www.london.gov.uk/lhc

> They (the consultants) basically tutored us on what you could do and what you might expect (1.4 service re-development)

> We did some work with (consultants) and the London Health Commission to sort of scope out the kind of non-health outcomes of the whole project...when I say non-health, that's probably the wrong way of putting it but the non-clinical outcomes of the project in terms of potential for local employment, transport, reducing emissions, using more modern technology, forming closer links with the local community and so on, a very big agenda (1.3 service re-development)

Project 1.7 utilised assistance from students working in related areas:

> (a student from) Bradford University ...did LM3 on us...showing the direct impact that we're having on the local economy (1.7 food procurement).

The Type 2 projects included in this Category did not have to engage such exploratory exercises in determining their priorities, as these were largely set according to the demands of the funding organizations which supported them. So, in Project 2.1 (food procurement), funders set agricultural and environmental objectives. The Project was also partially funded by the King's Fund[12], so incorporated additional requirements for health gains to be realised. In Project 2.2 (procurement), the funders were the Regional Development Agency[13], so they set economic priorities. In Project 2.3 (employment), the project was supported by the Strategic Health Authority[14], who therefore focused on employment as an important determinant of health. Project 2.4 (procurement) was a Welsh government supported initiative, which largely aimed to promote a public procurement agenda in Wales[15].

What is similar though between all Category 2 projects, whether they are Type 1 (internally led) or Type 2 (externally led) is the ambition to effect change in the wider community, through the project interventions, even though the specific changes expected as a result of these interventions are not specified. The strategic model is based on doing certain things, not expecting certain outcomes and this is very different to those in Category 1. There is recognition that specification of complex outcomes is difficult:

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[12] King's Fund: an independent charity which 'seeks to understand how the health system in England can be improved' www.kingsfund.org.uk

[13] Regional Development Agencies: government-led agencies responsible for supporting regional economic growth, due to be abolished by March 2012. www.englandsrdas.com

[14] Strategic Health Authorities: created in 2002 to manage regional NHS activity in England on behalf of the secretary of state, due to be abolished by April 2012. www.nhs-uk/NHSEngland/thenhs/about

[15] Public Procurement Initiative in Wales: initiative to increase amount of Welsh products, including food, purchased by public sector in Wales. www.assemblywales.org

> Hopefully there will be some indicators that we'll use, but I think that it will be quite unusual if we can actually attribute a direct outcome to any single facet (1.4 service re-development)

> So we're not in a position to say "well there's all the tangible and intangible benefits and that's why we believe you should spend as a Trust more money on this" because that won't work (2.4 procurement)

The most common approach therefore appears to be to focus on the processes they establish instead of measuring outcomes:

> One is the number of people recruited through the local recruitment initiative (1.3 service re-development)

> Monitoring local employment, recording the number of events (that support this)...attendances at the job shop (1.4 service re-development)

> Percentage of spend within Cornwall (1.7 food procurement)

However, there is some concern evident that they should be able to measure outcomes;

> But I want to drill down and say "apart from the economic benefits, what about the other benefits?" So it could be environmental, it could be occupational/ill health related, it could be social enterprises and the impact it's had on them…I don't know but we need to work out how or if we could measure some of that. I mean if you've got any ideas (2.2 procurement)

> it is a problem measuring health outcomes, but that's why I think it's so important for us to develop the thinking on sustainability and health and that's why I'm so keen to work with…other professions…to work out how do you measure the impact of our work? And what is the most effective use of time? (1.5 public health and environment)

6.2.3.3 Category 2: an additional 'enabling' role identified

It is possible to identify an additional role for the Category 2 projects (SD as PH) which are led by external organizations (Type 2). Type 2 projects do indeed exhibit the main purpose of Category 2 which is to contribute to social, economic and environmental determinants of health. However, they also have another explicit objective which is to develop the ability of the NHS, and its essential partners in these aims, to achieve this. This is most notable in the procurement projects in which external lead organizations work to develop the links between the NHS and its suppliers:

> Kind of negotiating between the two (NHS and suppliers), and even so much as just putting them together, finding the contacts, acting as a sort of go-between really, that was sort of a large part of the role (2.1 food procurement)

> We came into this very clearly thinking right, we're gonna link SMEs with NHS spend and you know, we're gonna get them exchanging contracts and talking together (2.2 procurement)

> Engaging the local Trusts...in terms of their specific requirements and how those can be influenced, and engaging with the supplier base to identify areas where perhaps we haven't identified suppliers in the past (2.4 meat procurement)

Training and development of both NHS staff and the suppliers in order to help them to work together was important in each of these projects. The following two quotes indicate efforts to train local suppliers in their ability to win contracts with the NHS:

> Developing the training & guidance and providing my own expertise and knowledge to any suppliers (2.2 procurement)

> So the actual going out & finding suitable producers, helping them to get into the NHS contracts, so that might have been....on Health and Safety, and auditing, having the necessary knowledge to get involved...(2.1 food procurement)

The following two quotes indicate efforts to work with NHS staff to develop their ability to procure using local contracts:

> The other side was sort of working with the organizations themselves, the hospitals...so on a practical training level we ran a number of seminars and training events for the catering manager, chefs etc and did things like taking them out onto farms to actually meet some of the suppliers that were supplying them, and then there was the sort of more general educational events, so setting up within the hospitals, stands relating to British Food Fortnight, or Farmhouse Breakfast Week or Apple Day, in an attempt to reconnect the patients, staff and visitors with the food supply chain itself (2.1 food procurement)

> (We) developed a (procurement) workshop and we've rolled 10 of those out across the North West. I think we've had about...probably about 200 or more, 300 attendees (2.2 procurement)

There is also evidence that the employment focused project within this Category (2.3 employment) involved linking NHS staff with potential employees whom they may not normally come into contact with, and therefore training and awareness on both sides of this relationship was part of the Project:

> encouraging NHS employers...to increase the proportion of people from deprived backgrounds who got that employment....and making sure people were employed and trained, recognising that these people were perhaps not so immediately job ready (2.3 employment)

To summarise what has been learnt through this definition exercise, the main thing has been the improved understanding that NHS SD, which has to date been discussed as if it were a single agenda, actually comprises projects which are very different in their scope. Two broad categories, as was proposed theoretically, have been identified in practice and these are broadly in line with the espoused theories of SD as ERM, and SD as PH. SD as ERM is primarily an internal organizational concern, and SD as PH is concerned with contributing to issues external to the organization which are perceived as determinants of health in the wider community. Within these categories there is also variation. Some

ERM is seen as a stepping stone to a broader interpretation, more akin to SD as PH, whereas some projects do not emphasise this role. Much SD as PH currently focuses on economic and social regeneration objectives via such activities as NHS procurement and employment. Environmental concerns do not, on the whole, feature highly within SD as PH. An additional 'enabling' role for the Category 2 Projects run by external organizations has been identified, and involves efforts to link the NHS to those actor groups such as suppliers, with whom it needs to be linked if it is going to influence them through organizational practice. It also involves the training, skills and awareness development to assist such relationships.

In the next section, I use the 'conversational map' to discuss the reasons for these Categories, and the challenges and opportunities faced by those working within different projects. The interviews with Policy Leads (Type 3) are used to help understand where both of the Categories of projects arise from with respect to policy and guidance, and what influence this has on the ability of each Category to succeed. I propose that the three challenges identified for NHS SD which I included in Chapter 3 (lack of organizational support, problems of measurement, and inappropriate working practice), can be understood in much greater depth through this interpretive framework, and introduce how this analysis also feeds into Action Research designed to address these.

6.3 Using the 'conversational map' to understand challenges and opportunities experienced in these projects

In this section, I suggest that the challenges and opportunities experienced in the projects studied for Phase 1 can be placed into the three broad categories observed in the broader literature review of NHS SD, but that the 'conversational map' also helps to explain, as well as describe these.

6.3.1 Lack of organizational support: dependent on project definition and context

As reviewed in Chapter 3, the studies of Jochelson et al (2004), and Griffiths (2006) stated that a lack of organizational, or corporate support for NHS SD was problematic for advancing this agenda. This was evident in the lack of performance monitoring arrangements or incentives which existed for staff to engage with this agenda, and also in the contradictory nature of other policies which emphasised the need for improved efficiencies in the short-term. The identification of the different Categories of projects, and then differences which exist within these Categories helps to understand that not all projects will experience a lack of organizational support to the same extent. Projects in Category 1 (ERM) were able to receive relatively strong organizational support, especially

when their technological fixes (renewable energy projects) realised pre-determined cost savings. In these cases, the business case was clear to the organization. This was not the case in projects which advocate SD as PH, where Project Leads faced real challenges, with their proposals being viewed as 'fluffy', or less important than pressing budgetary concerns:

> When you talk to a Chief Executive or a Board, they don't tend to go for fluffy ideas, they tend to go for risk management and finance solutions, but (the CE at the time) always said that we looked at this like the alignment of risks and that we ended up having to sell it to the Board by saying…look at the risks (1.7 food procurement)

> In the current NHS climate, in terms of budgetary issues etc...it's never going to happen that it's going to be seen as a hugely important issue so I think we just take that as a matter of course, but hope that it can be on the agenda in some shape or form (2.1 food procurement)

However, even amidst these difficulties, Project Leads working on SD as PH have been able to secure some support, and their projects have made some progress. The 'conversational map' helps understand that they have done this by drawing on resources of organizations outside the NHS for whom the theories espoused in the SD as PH agenda are perhaps not so alien. Many projects draw on sources of funding connected to the cause of economic and social regeneration, such as Regional Development Agencies in Projects 1.4 (service re-development), and 2.2 (procurement), and European Objective 1 funds in 1.7 (food procurement). As has been reviewed in Chapter 3, the potential for economic regeneration to contribute to health inequalities is an argument that is well-accepted within some government-led reports such as the Acheson Report (Acheson 1998), and more recently the Marmot Review (Marmot 2010). In some contexts then, these arguments have been successful in securing NHS engagement in projects concerned with SD as PH. In these cases, what seems to have been important is a local acknowledgement of the importance of social and economic determinants of health, possibly where the effects of this argument are most noticeable: in more socially deprived areas. This appears to lead to an expectation that the NHS should act to contribute to these through such projects as 1.3 (service re-development), and 1.4 (service re-development). Whilst internal ERM gains relatively good levels of organizational support, as noted, the contributions to the wider environmental influences on health are less evident in these projects. These are most evident in Project 2.1 (food procurement) which is led and funded by the environmental organizations Sustain and the Soil Association, indicating that the NHS itself still does not value this highly.

The 'conversational map' then helps provide an explanation for the differences in what projects do and do not include, with respect to the vast number of concerns which could be included in systems-based models of NHS SD. When projects involve, and are even led by, outside organizations or stakeholders, it seems that different concerns to those which dominate within the organization can be progressed, at least to some extent. Using the terminology of AR for SD introduced in Chapter 2, these concerns can be viewed as the different 'voices' of an emerging ecological paradigm of NHS SD, which are currently marginalised. As Bradbury and Roth (2006) suggest, these are advanced only when there are 'intentional micro-changes, catalysed through a logic of attraction by a compelling new vision and discourse' (p. 241). In some contexts then, such as where local agreement on the need to tackle health inequalities is greatest, this vision and discourse can be said to be alive to sufficient enough an extent that it receives support. Its success is still not guaranteed though. As Bradbury goes on to warn, the existing reality may not be supportive of the vision. Even in Cornwall, where knowledge of the economic problems in the county was high, the NHS was under great pressure to deliver on its dominant targets, hence the feeling that such arguments are 'fluffy' (1.7 food procurement). And in Salford, where support for integrating these concepts into the development was high, at times the effort required to do so amidst competing pressures to deliver the new services, put these long term ideas at risk:

> And you know when you're under pressure you do start to think well if no-one's going to notice whether this happens or not, um why bother carrying on? (1.4 service re-development)

The proposal that the different categories evident are the result of input of different interest groups within the NHS SD agenda, is supported by an acknowledgement of where policy agendas arise from. The internal ERM agenda is spearheaded and supported nationally by the Department of Health agencies (3.1- Estates and Facilities Management Division , 3.4 - the NHS Purchasing and Supply Agency), on behalf of the NHS itself:

> the remit is to "green the NHS" (3.1 Estates and Facilities Management)

> the main areas that I would say we're probably focusing on trying to give them guidance to address are in the area of trying to reduce operational costs….trying to key into areas where there is a business case behind it….managing reputation or risk which I think will become far more important to Trusts over the coming years, particularly with the Patient Choice agenda (3.4 NHS Purchasing and Supply Agency).

These organizations are concerned with the internal needs of the NHS, in becoming resource efficient, managing its risks and complying with Governmental targets in this area. Recognizing the importance of the financial case to support this activity, these Policy

Leads aim to help Trusts make the financial case for becoming more resource efficient. This is particularly evident in the responses of 3.1 (Estates and Facilities Management), where the belief is that Trusts can quantify their resource efficiencies, and will be rewarded financially from grants available to assist them in this:

> it will be what I like to quote as 'bank for buck'; that they won't get money (carbon fund) unless it's backed up by quantifiable savings, carbon savings so that the money we spend will aim to get us towards the 15% ultimate target. (3.1 Estates and Facilities Management)

On the other hand, the organizations which promote SD as PH are independent of the NHS, with at least a partial remit for critiquing the NHS and its current approach to SD. These are the Healthcare Commission (3.2), and the Sustainable Development Commission (3.3):

> we still have this quite clear objective for the NHS which is to promote better health, reduce health inequalities and all of that. And in order to do that, you have to pursue the SD agenda, because if you don't you're going to contribute to effects that cause catastrophic damage to the social, economic and environmental systems on which health depends (3.2 Healthcare Commission)

> (a sustainable healthcare organization is) an organization which sees itself as an integral part of the community and gives back as much as it can (3.3 Sustainable Development Commission)

In summary then, I propose that the different categories evident, as well as the differences within these, are a result of the input of different interest groups within the NHS SD agenda. There is an internal NHS SD agenda which is predominantly about what the organization can gain through being more efficient in its use of resources, and this is supported by policy originating in the Department of Health itself. Alternatively, there is an externally focused NHS SD agenda, concerned with what the organization can contribute to the wider determinants of health, and this is supported by policy originating outside the Department of Health, in organizations whose specific purpose is to be critical of the NHS. This has implications for understanding how different projects can progress depending upon which category they fall into, as well as depending on contextual, and even temporal, differences. As stated by the respondent from Project 2.3 (employment), contexts are more or less favourable to developing SD as PH at different times. This respondent described how there was more support for public organizations such as the NHS to contribute to ideas of SD as PH during the first two Labour administrations after they took office in 1997, and that opportunities had since been diminishing:

> The glorious period has come and gone and there are lots of cutbacks now in the amount of work that is being sponsored and so on (2.3 employment)

I propose that this analysis adds support to the idea that it is more important to develop approaches to aid navigation of these changing contexts, than to aim to specify uniform solutions, and that the Action Research framework is one response to this need.

6.3.2 Problems of prioritisation and measurement: an epistemological challenge

The point made by Jochelson et al (*op cit*) was that those involved in NHS SD wanted guidance on how they could predict and measure the benefits of their projects, and I summarised this as the second of three challenges identified:

> they wanted information on how the NHS affected its environmental, economic and social context; examples of projects in other areas; and evidence that a change in NHS practice had a positive local impact (p. 3).

Analysis of the projects through the 'conversational map' helps to further understand this challenge, and that this will be experienced differently depending on, as with the first challenge, the definitions being progressed and the contextual conditions. Category 1 projects seem able to prioritise and measure the resource efficiencies involved, but the challenges for Category 2 projects are more significant. In Category 2, projects attempt to contribute to complex social-ecological-economic systems via the principles of SD as PH, and seek to understand the benefits of what they do. As indicated in the project definitions, some only attempt to measure what they do (e.g. the numbers of suppliers they support), and they do not attempt to measure health outcomes. In some contexts, this appears to be enough; Projects 1.3 and 1.4 (both service re-developments), show that where the benefits of such an approach seemed so clear to all parties involved, there was no need to prove the outcomes. The need to prove outcomes was seen as an impossible quest, and was not even attempted by most:

> Hopefully there will be some indicators that we'll use, but I think that it will be quite unusual if we can actually attribute a direct outcome to any single facet (1.4 procurement)

> So we're not in a position to say "well there's all the tangible and intangible benefits and that's why we believe you should spend as a Trust more money on this" because that won't work (2.4 procurement)

Policy Lead (3.2 – Healthcare Commission) claims this should not be necessary:

> I mean it's not something that's going to stand or fall on whether you do a Randomized Control Trial; it's not that sort of proof is it? You're looking at a set of guidelines and whether you follow them or not, and we know there's an impact on health, I mean there's an increasing body of evidence about it (3.2 Healthcare Commission)

However, in some cases, as was described in the definitions above, Project Leads do feel the pressure to measure. This reflects an ongoing experience of the Public Health community that they must prove their worth in terms that the NHS understands. Hunter

(e.g. 2001, 2003) describes in his commentary on the fate of Public Health within the NHS, that this may not be possible as Public Health is based on different epistemological and ontological assumptions than those dominant within the NHS which support the use of Randomized Control Trials as prioritisation and measurement tools. Some Project Leads are experiencing this debate first hand; they feel they have to use existing language, tools and techniques if their projects are to be given credence. So far, apart from attempts to measure economic outcomes through the LM3 framework, this ambition, especially in relation to health outcomes, remains elusive. Policy Lead 3.1 (Healthcare Commission) shows some frustration that this should even be attempted:

> Because you just look at the evidence and you think well, all the evidence says that if patients are fed properly they get better quickly, more quickly, so you just pursue the policy. It's not about...I don't see where the difficulty of predicting this change could possibly be (3.2)

However, the reasons for these attempts are real, and need to be engaged with. The argument is at the level of epistemology, ontology and methodology, concerning the nature of cause and effect, and the ability to shape outcomes through interventions. This debate cannot solely be tackled by individual Project Leads. These 'champions' need support with what is a communicative exercise understood by the concept introduced in Chapter 2 with reference to Reason et al (2009), as 'relational practice', meaning the critiquing of 'strongly held conventions of what is normal, acceptable, and reasonable action to take' (p. 99-100). Policy makers could perhaps do more to acknowledge this process, and support the social mechanisms which enable people to engage in such activities more. They need this support more than they need more guidance on what to do, otherwise they are likely to feel the inadequacies of not being able to achieve these ideals. Project Lead 1.2 (renewable energy) had a particular strategy for dealing with this situation. He made a conscious decision to work within current limits of his context at present, but to take opportunities to build understanding for greater scope in the future, through efforts to speak from his estates perspective to Directors of Public Health as opportunities arose:

> In terms of the day-to-day, the scheme you've heard about is about cost-saving....in terms of my strategy my medium and long-term, I am starting to talk to the Directors of Public Health (1.2 renewable energy)

In summary then, just as projects experience levels of organizational support differently in different contexts, so too do they experience the challenge of prioritization and measurement in different ways. Projects with a focus on ERM have relatively few struggles in determining required outcomes, and can measure these using the indicators

of cost and, to a lesser extent compliance with resource efficiency targets which are acceptable to their organization. Projects with a focus on SD as PH vary in their approach to prioritization and measurement; if there are locally agreed priorities regarding the determinants of health, projects just have to show they are working towards these, not to prove a link between what they do and the impact on health. However, in some cases, the need to determine expected outcomes at the outset, and to be able to measure these, appears to be a more pressing requirement, and some Project Leads expressed a desire to address this. I have proposed that Policy Leads from organizations which develop guidance on SD as PH need to consider this need, as well as prescribing in more general terms the areas of activity which are likely to contribute to determinants of health.

6.3.3 Developing 'relational' working practices

Analysis of interview responses regarding the nature of working practices within these projects, in the form of the 'conversational map', helps us understand why issues of co-operation, partnership working, and engagement, identified in the literature review, are so important. Viewed in these terms, one can see that this is 'relational practice'; the establishment of conversations in which the implications of systems-based ideas of NHS SD can be debated, with a view to being progressed. Project Leads have articulated the need for this with respect to both Categories:

> I mean here even here in our own hospital, we talk about this to people and lights are left on, computers are left on overnight and the weekends, there just doesn't seem to be a way to get through to people what we're doing (1.1 renewable energy)

> You know the NHS is split up as ever, is split you know heavily cantonised really in terms of its different disciplines (1.3 service redevelopment)

> But there are huge issues around, I think, SMEs talking the same language as the NHS. They are worlds apart and the communication was also very bad (2.2 procurement)

Relational practice is linked to the other challenges identified as it is about promoting alternative values and strategic approaches to support aspects of NHS SD which are not currently supported. The difficulty faced by NHS staff in developing this relational practice alone, is evident in the occurrence of those projects originating from outside, who saw it as their role to provide resources to assist this. It is not clear that the NHS itself has any coherent strategy to support these process requirements but this analysis suggests that relational practice should be viewed as just as important as the achievement of specific outcomes when considering the support required for those leading projects for SD. Clearly the sole reliance on external organizations to provide this support, is risky,

especially as these external organizations are themselves susceptible to changing political priorities, and may not always be so numerous, or well-resourced.

6.4 Relevance of the 'conversational map' within Action Research for responding to challenges and opportunities

Analysis of NHS SD projects using this map has confirmed the importance of attention to relational practice if any other definitions of NHS SD, other than the narrowest approach to ERM, are to be progressed. Project Leads are engaged in relational practice as a project objective: bringing people together to develop ideas on organizational purpose with respect to the determinants of health, and considering how to communicate the worth of their projects within an organization set-up to value different types of priorities. I propose that with these over-arching principles confirmed through Phase 1, it could be useful to engage in such analysis of a specific context, within an AR framework of the kind proposed in Chapter 4. This could help lead to further understand of the nature of a particular initiative: its definition within the potential range available, with a view to understanding what currently constrains it, and therefore what could be changed. The map helps to make explicit the current constraints in terms of the dominant organizational paradigm, which is likely to exert different levels of influence at different times. For example, as was evident in some projects more than others, at certain times budgetary concerns are likely to be more pressing:

> Most of them (NHS organizations) are probably bankrupt if we're honest so trying to sell a concept that may very well benefit the overall economy in the longer term when you're faced with a multi-million pound deficit and losing staff left, right and centre, and deciding which services to cut, which one are you going to focus on first? (2.4 meat procurement)

> You know at the moment this organization is thinking 6 weeks ahead, under better times it thinks a year ahead, this financial year, but actually it needs to be thinking 5-10 years ahead (1.2 renewable energy)

In such times, it may be unrealistic for the organization to support any long-term investment in this area, and it then becomes particularly important to look outside for support. The map helps us understand that other actors have interests in developing SD as PH. In addition, this analysis provides good evidence that Champions do indeed need a great deal of support in developing relational practice. Currently, projects appear reliant on a mixture of external pressure combined with an enthusiastic Project Lead (possibly part of a bigger team). The personal commitment they bring is evident in these quotes:

> The idea is to get it into the mainstream of how the NHS works, that's my thinking behind it um so it becomes kind of normal and natural ways of working, rather than relying on projects that come and go about….that's the dream <laugh>(1.3 service re-development)
>
> And you know when you're under pressure you do start to think well if no-one's going to notice whether this happens or not, um why bother carrying on? But no <very determined no> thankfully it has carried on um and I think it's going to deliver. (1.4 service re-development)
>
> If I looked at my job description and relayed it back to what I've just talked about, I probably wouldn't be doing any of this. I have to interpret my job description to um enable me to take a much wider view, that's the problem….(1.2 renewable energy)

I propose that if NHS SD is going to progress, it is necessary to think more strategically than the NHS has currently done to date, about the support that can be given to such Champions. Concepts of organizational learning are about building on, and supporting these personal ambitions, for the good of the individuals' own development, as well as for the good of the organization as a creative and adaptive entity operating appropriately within its broader context. Action Research is explicitly designed to assist this process. The analysis is also supportive of the proposal made in the framework of AR for SD, to engage other actors in the learning system, and it helps to identify who these might be. It seems crucial to engage with other actors within the local context who have shared interests in the determinants of health included in proposals for NHS SD. It also seems crucial to engage with those Policy Leads who continue to develop guidance, so that they can consider if there are any ways they can help to challenge essential ideas of organizational purpose, strategy and practice, at levels of influence which may not be accessible by local teams. I now briefly introduce the potential for this format of analysis, to assist progress with Project 1.5 (strategy development) as this is the project which is used as a case through which to explore these proposals in Phase 2.

6.5 Defining Project 1.5 with a view to Action Research

It is particularly important to comment on the definition of Project 1.5 obtained through this exercise, and the potential for this to be progressed through Action Research, as this is the project which forms the case for Phase 2. Project 1.5 was categorized as SD as PH; it was a partnership initiative run by one member of staff within a Primary Care Trust to develop sub-projects which aimed to improve health through their environmental determinants. Examples include a partnership to develop local sources of healthy food, and a partnership to improve the health conditions of cold and damp housing through tackling fuel efficiency. Unlike all the other projects, this was run by one person within one Department in partnership with external agencies such as the Local Authority. This in itself is in line with the ecological paradigm of SD as PH. It was concerned solely with

these external projects and was not linked to core NHS activity. In this regard, there was much room to develop it. As the national agenda for SD as a corporate aim was gaining ground, as evidenced by the NHS Carbon Reduction Strategy (SDU 2009) and the Good Corporate Citizenship Toolkit (SDC 2006), the Project Lead was increasingly aware that the organization had to re-assess its priorities for SD. In the following quote, the Project Lead expresses her realisation that such a re-assessment of organizational priority needs to take place. She makes reference to the fact that she is part of a national network, linked to the Sustainable Development Unit (SDU) which is considering these questions:

> When I really think about it, sustainability needs to be central to the PCT activity, not just for environmental reasons but for health reasons and financial reasons as well. And in that sense, I'm located in public health. In some ways, maybe you need a lead in the Chief Executive department, so….actually…maybe that might be an option….but it needs to be integrated into all aspects of the way we work, but to get from where we are at the moment to that point is the thing that we're grappling with in the national group (SDU) that I'm working with (1.5 public health and environment).

She also describes the personal responsibility she feels to try and respond to this task:

> That's something, particularly talking to you, has reminded me of the importance of that sort of strategic approach being so helpful in sort of channelling effort and work, that's something I do need to think about developing. You know even if it's just me doing it. Ideally you know, you'd want a multi-sector group working on it but if that's not possible, maybe I need to do some work on it myself (1.5 public health and environment).

From this analysis I understood the Project Lead as being keen to develop her relational practice further, and to try and move SD as PH from a fairly marginal position within the organization, to one which is more central. At the time of conducting the interview, this seemed an appropriate example of a topic which could be explored in Phase 2. As the next Chapter shows when, a year later, I invited this Project Lead to form a group for this purpose, the response was positive.

6.6 Summary of key findings of Phase 1

In this Chapter I have used the 'conversational map' to guide categorization and explanation of project definitions for those investigated through the Phase 1 interviews. This has revealed that the two broad categories indicated by the map (SD as PH and SD as ERM) do exist but that there is also variation within them. I propose that this analysis helps us understand these definitions as being shaped by the context in which they arise, and that the map with its articulation of what the espoused theories of the NHS are, helps us seek evidence for the origin of the external influences which can lead to them. Within all those projects where ideas of SD as PH were central, acceptance of the discourse of SD as PH was evident amongst external context, and was accompanied by resources to assist

the NHS in engaging with this. I propose in this Chapter that viewed in this light, SD Leads are engaged in relational practice in order to be able to link the NHS with this external context, and to gain acceptance from within the organization, to do so. Those SD Leads based in organizations outside are explicit about this ambition; they want to develop systems-based ideas of SD as PH within the NHS, and for external actors including suppliers, to take advantage of these emerging ideas. I propose that this view of the activity of Project Leads from inside or outside the NHS, lends itself well to the suggestion that AR in the form of the framework proposed in Chapter 4 (Figure 4.5), could help with this activity. It offers to provide spaces where relational practice can take place, as well as helping to identify those actors outside with whom it could be beneficial to engage: actors at the local level with a shared interest and possibly resources, as well as actors at the national level, with potential influence on key debates. In the next Chapter, these proposals are explored in Co-operative Inquiry with a group drawn together by Project Lead 1.5 (public health and environment), and the focus of this inquiry is a re-assessment of the organization's approach to SD, which up until this point had been limited in scope to activities not related to core organizational purpose.

7 Results of Phase 2

7.1 Introduction

In Phase 2, the 'conversational map', now strengthened through the empirical study of Phase 1, is used within an organizational Action Research (AR) initiative with one NHS Trust, as guided by the framework of AR for Sustainable Development (SD) outlined in Chapter 4. This Phase therefore contributes further to the same context-level research objectives explored in Phase 1 which concern an understanding of NHS SD, through an in-depth study of one case. It also responds to the meta-level research objectives about the process AR for SD in the NHS, as proposed in the framework. To recap these objectives are:

1. To develop the notion of a 'conversational map' of paradigm change for NHS SD, to aid the integration of theory building for SD
2. To understand further the potential for AR process to contribute to transformational learning process in the NHS
3. To contribute to definitions of the 'integrative' role of the researcher, and the 'participative' role of practitioners in this context

These questions were investigated through an AR initiative with a group of staff from the NHS organization of one of the interviewees from Phase 1. The Project Lead from 1.5 (public health and environment) identified a potential inquiry project, and brought together group members from her organization, NHS Nottingham City. In this Chapter, I document the AR process which took place with this group. I begin with the background context to the group work: the formulation of a project idea, and a group for inquiry, and the subsequent formal proposal I made which led to the commencement of the work. I tell the story of what actually happened in the group work, dividing this into three parts where I believe key decisions about actions were made. I illustrate what happened throughout with respect to the development of three parameters which were 'group concerns', 'group dynamics', and 'my own concerns', identifying the patterns which emerged around these. I interpret this story through the theoretical understanding provided by the AR framework, which guided the ambitions of this work, reflecting on why certain things happened, and my role in these events. I conclude with a summary of the key findings of this Phase.

This written account of the AR process is my own interpretation of what happened. In a perfectly participative process, this report would have been more of a joint effort.

However, the need for such a detailed academically acceptable account of what took place is only mine and is not shared by the other participants. Therefore, I did not feel in a position to request that level of input from them. In order to try to make this report as close a representation to what happened as possible, I sought much input into the ideas presented throughout the group evaluation processes, as well as inviting comment on the full draft. As explained in this Chapter, one member of the group, Helen, who was the original Project Lead in Phase 1, was considerably more engaged in the transformational ambitions of the Co-operative Inquiry principles which guided this AR, than the other group members who were most concerned with outcomes. Because of Helen's particular engagement, I felt able to ask her to respond to some of the specific points raised in this Chapter and her comments (included in Appendix 7a) helped inform the subsequent discussion in Chapter 8.

7.2 Background context to the Action Research group

7.2.1 A Sustainable Development strategy for NHS Nottingham City

As explained in Chapter 5 (Methods), the AR group was formed as a result of one of the contacts made in Phase 1. The Project Lead (1.5), Helen Ross from NHS Nottingham City, had expressed a real interest in this PhD research at the time of the initial interview. When I recommenced this study for Phase 2, I contacted her again via an explanatory phone call in which she explained that there was potential for an AR group to be formed in her organization. When I had interviewed Helen for Phase 1, the SD agenda for her organization was focused around a partnership with other organizations called the 'Health and Environment Partnership'. Whilst consisting almost entirely of representatives from other organizations in Nottingham, it was run by Helen to support initiatives which link health objectives to environmental improvements. The main initiatives it supported were a 'Healthy Homes' project in which work was carried out with the Local Authorities, amongst other partners, to improve the energy efficiency of poorly insulated homes in order to tackle ill health, a 'Food Initiatives Group' which involved the NHS, Local Authorities, the farming industry and others, to practically link issues of food, health and environment in the supply chains of organizations and individuals, and 'Ridewise': a scheme to encourage healthy modes of travel as part of the city transport plan. The SD of the organization's own activities was not central to this work apart from through the development of the organization's own travel plan as part of the Ridewise scheme. Since then however, this focus had begun to change. Helen had become involved with the NHS national SD agenda, specifically the work of the NHS Sustainable Development Unit (SDU), as well as an increasingly vocal UK Public Health Association (UKPHA) which strongly

advocated that the NHS use its influence to contribute to SD. Illustrative of this was its publication on SD and Health (UKPHA 2007), to which Helen contributed. She had secured funds to look at the organization's own impacts, particularly in relation to Carbon Dioxide equivalents (CO_2e), emissions. Decision makers in her organization were now taking notice of this agenda, and financial resources had therefore been secured to develop an organization-wide SD strategy for the first time. This focused on reducing resource use and carbon emissions, whilst making links to other aspects of SD to which carbon emissions are related, such as the improvements to staff health by changed travel habits (Nottingham City PCT 2008[16]).

The momentum achieved at this time raised three clear issues: first there was recognition of the scale of involvement required of staff across the organization, if such resource reduction was really to be achieved. Helen could not do it all. Second, with significant financial input came the need to ensure that all decisions were now made strategically and reported transparently, rather than in the more opportunistic manner in which this agenda had progressed to date. The organization, at the corporate level, needed an understanding of their priorities within this agenda. Third, these SD ambitions raised questions about the organization's relationships to others. Helen was involved as a regional lead in consultations on the development of national guidance and strategy by the Sustainable Development Unit. How could the organization ensure that it benefited from this process? A vision for a regional network of organizations working collaboratively and learning from one-another, was developing from this Regional Lead role. How could such a network help with this organization's own Strategy, and what leadership role did the organization wish to play in their region? What was the potential for existing partnerships, which Helen had developed to date, to help them to address these newly emerging organizational priorities?

The offer of facilitated AR sessions, based on the principles of Co-operative Inquiry, was therefore positively received by Helen, as a means to help build supportive relationships within her own organization, so that these questions could be addressed collectively. Prior to this, she had developed the partnerships for SD without significant input from others within the organization. The following two quotes from Helen, made in this exploratory phone call, illustrate this. The first illustrates her need to form a group:

[16] Prior to 2009, NHS Nottingham City was called 'Nottingham City PCT'

> Buy-in is there in broad terms (laughs) but I think it would be very helpful to have your input because the proof is in the pudding I think….the money's there but it has to be spent quickly…I can foresee blockages appearing so if there was a group that was actually helping to make it happen, I feel it could be in a better position to work (exploratory phone-call with Helen 2009)

I thought this sat well with the intended use of the AR framework which I had theoretically developed to support Champions in their relational activity which, to recap, Reason et al (2009) describe as the promotion and development of concepts of SD, where alternative ideas dominate. The AR framework serves to draw attention to the complexity of this communicative task for Champions, the extent of which often goes unacknowledged, and offers a guide to Action Researchers in assisting them in this practice. So began what I believe to have been an extremely fruitful co-operative relationship between Helen, as an organizational champion, and myself as an Action Researcher. The first step was to secure commitment from a group, and Helen felt that making the offer for this would be a useful process in its own right, even if no agreement was reached. By making the proposal she said that I would be helping her to pose the question of commitment from her colleagues, which was a question she needed to ask anyway, but one which was usefully framed within this offer of AR:

> Whether or not people agree to be in a group will also illuminate any potential obstacles as well, and that'll help me realise how serious people are (exploratory phone-call with Helen 2009).

7.2.2 Understanding the organization

In order to embark on my role as facilitator of this AR group, which I will refer to here-on as a Co-operative Inquiry group, I needed to understand some more of the organization and its priorities, as SD strategy would have to be integrated into these in some way. I needed to acknowledge the type of NHS organization that NHS Nottingham City was. As introduced in Chapter 1, prior to its radical restructuring following the White Paper *Equity and excellence: Liberating the NHS* (DH 2010), the NHS in England was divided into different types of organizations such as Foundation Trusts, Hospital Trusts, Primary Care Trusts (PCTs) and Ambulance Trusts. NHS Nottingham City is a PCT located in the East Midlands region of England. Whilst PCTs will not exist in the new structure after 2012, at the time this study commenced, they had the principal role in the planning and commissioning of local services, as well as the provision of certain community services. As well as organizational structure, I also needed to acknowledge its specific role within the City of Nottingham. As detailed in its Annual Report 2008/9, NHS Nottingham City had an annual spend of approximately £470m (NHS Nottingham City 2009), used to plan for, purchase and provide services for the City, such as hospital care, General Practice, drugs

and mental health and community services. This role required the organization to understand the population it served. In the same Annual Report (*ibid* p.17), Nottingham is described as a '*young, vibrant and diverse*' city of 325 000 people made up of a significant proportion of Black and Ethnic Minority groups as well as students who attend its two Universities. The report highlights levels of social deprivation higher than the UK average, measured by such indicators as employment, child poverty, crime and life expectancy. In addition to nationally set targets for decreasing health inequalities and increasing life expectancy, the report shows how such information is used by the PCT to inform 8 locally set targets involving diabetes, smoking, strokes, breastfeeding, alcohol, teenage pregnancies, substance misuse and heart disease. These national and local targets guide the strategic planning of the organization and the allocation of spend on different services. Progress towards these targets form the basis of accountability of the organization to the Department of Health. Any activities designed to respond to the demands of the Sustainable Development agenda must therefore fit into this broader context of strategic organizational planning.

7.2.3 Forming and understanding the group through a proposal session

Following the exploratory phone-call with Helen, she invited those members of staff whom she felt best placed to lead the SD strategy to a meeting where I was to propose the formation of a Co-operative Inquiry group. Those who attended this first meeting were Andrew, who was the Chief Executive of the PCT, Peter, who was a Deputy Director related to Governance who had recently been given the SD portfolio to lead, Trevor, who was a Deputy Director of Finance, and Helen, who was the Public Health Development Manager who had, up until this point, been sole lead for SD within the organization. For brevity, these group members are now referred to as Andrew (Chief Executive), Peter (Governance Lead), Trevor (Finance Lead), and Helen (SD Lead). Where I refer to the same group member more than once in the same section of text, I simply use their first name for all other than the first reference.

In this proposal session, as outlined in Chapter 5, I followed Torbert's four parts of speech to communicate effectively my offer. This meant that I first **framed** my own understanding of NHS SD, with respect to the tensions between what is espoused in SD policy, and the theories-in-use which dominate throughout the NHS. Second, I **advocated** Co-operative Inquiry, as a means to progressing espoused theories of NHS SD. I **illustrated** what I meant by this by presenting the AR cycle for organizational change through which the Co-operative Inquiry could take place, which involves diagnosis, action planning, taking action, and evaluation, and proposed that these cycles could be used to

help the group to become specific about what they wanted to achieve with respect to espoused theories of NHS SD, and plan and reflect on their progress over time. Finally, I **inquired** into whether or not they wanted to undertake this co-operative inquiry, outlining the criteria which I expected any Co-operative Inquiry group to meet. As a recap, these criteria were:

- A shared desire to progress espoused theories of NHS SD beyond the more narrow descriptions of ERM
- The shared acknowledgement that this was currently difficult
- An open and learning attitude
- Taking part in the cycles of Co-operative Inquiry through formal meetings, and agreed actions outside of these
- A live project or initiative which could form the basis of the inquiry
- A group which contains members with the ability to influence change, and has the support of senior members of the organization

In response, these people agreed to take part, and to form a group which met these criteria. They agreed that they would also need a representative from the Communications team, and therefore recruited the senior manager from this department, called Iain (Communications Lead) onto the group. The final group is shown in Figure 7.1.

Once agreement had been reached, the Group spent some time discussing their own priorities for the group work. In this proposal session, I identified three patterns of events which were to remain evident throughout. The first was a group concern focused on the measurement of tangible outcomes along with the desire for simplicity; this was evident through the group dialogue. The second was a group dynamic involving the interaction between what I called the idealism of Helen (SD Lead), and the realism of Andrew (Chief Executive) also evident from the group dialogue.

Figure 7.1 The Co-operative Inquiry group

Following feedback from Helen on this Chapter, I must define what I mean by these terms. I use the term 'idealism' to define the orientation evident in Helen's dialogue, towards challenging the organization to think in more systemic terms, akin to the ecological paradigm for NHS SD shown in the 'conversational map'. I do not use the term to mean 'unrealistic'. This was 'ideal' because it was about a vision of what things **could**, and in the values of ecological paradigm, **should** be like given the evidence available on issues of climate change or social instability. I use the term 'realism' to define the orientation evident in Andrew's dialogue towards reminding the group of the constraints of the current organizational paradigm. I do not use the term to mean 'inevitable' but an acknowledgement **of how things are**, and the influence these constraints have on choice of direction. Both views had their own justifications, and I view neither in a more or less negative light. I use them to draw attention to this real-life version of the tensions portrayed by the 'conversational map' as the struggle to develop ideas of SD amidst the dominance of alternatives. In addition to these two patterns (group concerns, and group dynamics), a third pattern observed was my own response to events, and can be summarised as a mixture of gratitude that members remained actively committed throughout, and concern that the focus of attention was narrow. This was evident in my personal journal entries, which I kept following each group meeting. I summarise these patterns, as evident in the proposal session, in Table 7.1 and describe these patterns below.

7.2.4 Establishing group concerns in the proposal session

The group clearly expressed a great desire to achieve measurable, tangible progress within their SD strategy. As illustrated by 'Group Concerns e.g.1' (Table 7.1), there was a

sense that now organizational commitment had been secured, in the form of financial resources, they must progress in a transparent, strategic way. The group wishes to understand more clearly the decisions made with respect to SD strategy, and measure the results. There was concern that with the added momentum now achieved, it was not appropriate for Helen to go it alone. Helen was in agreement with these concerns which were raised strongly by Peter, yet it did require her to relinquish some control over what she had solely been responsible for to date, and there were clearly some mixed feelings on her part in doing so. In this dialogue, she expresses surprise at the concern that she would not be able to achieve what their SD Strategy says she will do. As well as this concern for measurability, 'Group Concern e.g.2' (Table 7.1), illustrates the desire of Andrew (Chief Executive), for simplicity. This became an established theme throughout the Co-operative Inquiry, and one which was always received positively by the group. I believe that this recurrent group concern for measurability, accountability, and simplicity was at least partly a result of the enthusiasm of all group members to enact changes.

7.2.5 Establishing group dynamics

I believe that group dynamics were established in the first meeting which also remained important throughout. As illustrated by 'Group Dynamics e.g.1' (Table 7.1), Helen (SD Lead) became the voice of idealism, championing the potential for the PCT to progress espoused theories of SD as PH. Andrew (Chief Executive) became the voice of realism, advocating the need to work within current organizational constraints. I believe that, as indicated above with respect to the desire for accountability, this can be understood as a manifestation of his clear desire to make a change. It appears to be his belief that in order to keep SD on the agenda, and supported by the organizational Board, it has to be promoted in terms they will feel comfortable with:

> Everybody doesn't buy into the sustainability agenda, so I mean I think organizations are like the general public; there are a lot of George Bushes out there who don't accept a link between flooding in Nottingham and climate change, who don't accept that energy is a problem. It's like anything, the first thing to do with a sceptical audience is to focus on the things that you can demonstrate that work (Andrew Chief Executive)

An additional part of this dynamic was the use of humour to help maintain a positive and light atmosphere in the group, even when the issues being discussed had great depth, and as will be seen in subsequent examples, also involved the potential to cause upset to Helen through repeatedly negating her ideas.

It did not appear that Andrew's realism was a result of a desire to hold back progress. In fact, it could be viewed as the opposite. So eager was Andrew to keep this agenda alive, he

felt it important to promote it in acceptable terms. As has been noted by Reason et al (2009), the champion walks a fine line between promoting change, and not overstepping 'some unwritten line of acceptable behaviour' (p. 100) and seeming so weird that the agenda is dropped. It was clearly Andrew's view to err on the side of caution on this fine line. Within the group, his realism would win out every time to Helen's idealism and other members followed his lead. Whether they would have followed his lead no matter what his opinions were is an important question. There was no doubt that he was a charismatic leader whose enthusiasm for his own approach helped portray confidence in a particular course of action. The outcome of this dynamic was that on every occasion group members appeared most comfortable to follow his lead and leave Helen's tricky idealism to one side. I believe that the same dynamic was established with respect to the Co-operative Inquiry process itself. As shown in 'Group Dynamics e.g.2' (Table 7.1), Helen expressed much optimism for the Co-operative Inquiry process itself, in helping to break through the constraining barriers presented by the organization, which she had experienced a great deal in her many years as Champion, to date. Andrew was less optimistic about the ability of this approach within the constraints of the NHS, and made these concerns clear at the outset.

7.2.6 Establishing my concerns

As a result of this proposal session, I developed competing thoughts which, like the group concerns and dynamics introduced above, also remained largely the same throughout. On the one hand, as 'My Concerns e.g.1' (Table 7.1) illustrates, I was pleased that the group agreed to take part, and with the strong sense I had from the beginning that they were enjoying the process, and finding it useful. As an Action Researcher, this immediately made me feel useful. However, as 'My Concerns e.g.2' (Table 7.1) illustrates, I was starting to appreciate many complications with the process, and factors which may result in it not progressing as my vision intended. I began to understand that this was to be a mixed package for Helen (SD Lead). She had to begin to relinquish control over things that she had invested much time, energy and passion into until now, and it was clear that those who needed to pick up some of these issues as she let them go, were less experienced in the field of SD, and perhaps less committed. It was not all going to be easy for her. I began also to see the complexities of slotting the Co-operative Inquiry process into the ongoing work of the organization.

Group Concerns: The desire for accountability & simplicity	***Group Dynamics***: Idealism V Realism	***My Concerns: Pleased at engagement, troubled at scope***
e.g.1 Peter: the concern I've got with that is that there's an awful lot of money that needs to be spent...imperative short term sort of thing about shifting this sort of cash…what's the grand total? 150k It's a bit like Brewsters millions isn't it? Claire: it's a good and a bad thing isn't it? Peter: well yes, it's about the probity around that, spending it in a good manner and being accountable for that stuff. So it's very much around this whole thing of project management, implementation of this and one of the things, as I said to Helen yesterday everything seems to have HR next to it, Helen Ross. There's a short term issue there which is I guess what worries me most is that this needs to be done, it's a substantial action plan that isn't it…I don't mean this is any disrespectful way at all but how is it being actioned and where and who? Apart from it says HR. Helen: and that's your concern? Peter: that's my concern, yes. **e.g.2** Andrew: You know just thermostatic valves, effective heating, when we're designing new buildings just putting in things which mean that you have effective heat and save water, it's basic stuff that we just need to get in but for some reason, we don't, or haven't I should say, we are on that process.	**e.g.1** Helen:…In Nottingham we've got a real opportunity to source things locally, for the PCT to source things locally that in its own right will actually help local people in terms of jobs, training looking at investing in renewable energy technology but not just the technology… Andrew: …that is completely counter to the national priorities about how we work so Finance will talk to you about all their shared services being pulled together in Cardiff? **e.g.2** Helen: that's my….that's why I almost breathed a sigh of relief when you talked about your work, this will help….this process if we decide to go through it, will help me understand why this is difficult and therefore what the barriers are and then therefore how to overcome them, so from my mind, I would really like us to do this cos it would either help me to achieve or it will help me to stop banging my head against a brick wall do you know what I mean? Either way, it helps to reduce stress. Andrew: but the issue…and the dominant culture for the NHS and it's a top-down culture, is one about delivery so what people understand is about delivering on waiting times, on price, on financial targets, it's about delivering on productivity, it's about delivering on a whole raft of things. A model which is reflective which is about learning, which is about taking a step back is counter to the predominant culture that the NHS operates in, and that is quite a conflict.	**e.g.1** *I have a strong sense that this went well. Helen really found resonance with my story and telling that helped myself and her find common ground.'* **e.g.2** *'But there were several messes to result from it and I am realising these as the excitement ebbs: implications for Helen, can she relinquish control?, involvement of things agreed prior to meeting already underway, only so much I could achieve at the meeting just the introduction to the idea/purpose of learning cycles was enough, without discussing how CI groups and how these run.'*

Table 7.1: Patterns evident within the proposal session

As the meeting progressed, I learnt more and more about things which Helen already had underway, which made the process less neat than I had anticipated, but which I began to understand were completely unavoidable. This group was never starting with a blank sheet. Finally, this proposal meeting raised an ongoing concern that would remain throughout, that no-one, with the exception of Helen, was paying any significant attention to the process of co-operative inquiry itself and its ambitions to develop the conditions in which people could challenge and progress a dominant organizational paradigm. It was amidst these three evident patterns (Group Concerns, Group Dynamics, My Concerns), that the group work commenced. I now describe what happened: the decisions that were made by the group, and the actions which resulted.

7.3 What happened in the group

In this section, I describe what happened in three cycles of Co-operative Inquiry. The format and specific methods used within these cycles have been described in Chapter 5, and Figure 5.4 provides a summary of these which should provide a useful reference point for understanding what took place in this Phase. It is also helpful to keep the broad ambition of all the methods enacted in mind. In everything I did I was led by the ambition to facilitate analogical theorizing which, as described in the Chapter 2, is the articulation of any gap between current practice and desired vision, with a view to deciding how to progress the vision.

I did this by methods which were employed to do the following:

1) Help the group understand their current theories-in-use
2) Help the group understand any gaps between these theories-in-use and those espoused by NHS SD policy
3) Help the group decide how, and whether, they wanted to address these gaps
4) Help the group plan and reflect on actions accordingly

I present the story of what happened through four summary tables (Tables 7.2-7.5) of illustrative quotes accompanied by a discussion of their content. Table 7.2 is a summary of the exercise I carried out to help diagnosis; it captures quotes from interviews with staff involved in the organization's SD strategy, including group members. These are used to identify current theories-in-use with respect to SD, the will and potential for change, a vision for progressing current theories-in-use (taken from the 'conversational map'), and questions which I direct at the Group to determine how and whether they wish to develop such a vision. Tables 7.3-7.5 document changing patterns evident within the group with

respect to the parameters of 'group concerns', 'group dynamics' and 'my concerns', and relate to the different stages of the process as follows:

Table 7.3: Patterns identified at diagnostic and action planning stages, in response to the diagnosis exercise just described.

Table 7.4: Patterns identified at evaluation and 2nd diagnosis stages.

Table 7.5: Patterns identified at final evaluation stages.

In the description which follows these Tables, I refer to their quotes throughout.

Current Theories-in-use	Will / potential for change identified through diagnostic interviews	Vision for progressing espoused	Directed Questions
SD as PH Community projects well developed but marginalised	1)we need to do it, when we go out into communities, beyond the green things, we see the communities falling apart and not functioning as well as they could, and we live in these communities…not everyone will join in but we need to start (Employee from the Commissioning Department)	Continue with distinct projects but bring SD as PH into corporate strategy	1)To what extent do you wish to develop SD as PH, and move it to the centre of your organization's strategy?
ERM Greening of internal operations just beginning, led by external consultants	2)that (reducing energy) will save 20-30k/yr and you know, that's a District Nurse…the initiatives (radiator valves and others) are estimated at saving around 80k over the next 3 years which are real and tangible money to go into the delivery of healthcare (Andrew) 3)a lot of the people I will contact won't know anything about the project or who I am and won't know why they should co-operate and why its related to their jobs (external consultant working on Carbon reduction) 4)I'm supposed to be presenting at our next directorate meeting which I've never done before and I'm having major panics about it (Staff Champion) 5)how we influence via our commissioning the sustainability of our providers as 90% of our finances actually go to other people so it's them that have to deliver SD for us (Trevor)	ERM to focus not only on internal activities (and to improve staff engagement with these), but to include focus on the resources used by those commissioned to deliver services on behalf of organization	2)Should staff participate more in ERM projects, rather than them being largely led by consultants? 3)Should ERM extend to service providers?
General Strategy SD currently the responsibility of 1 person in 1 non-central department	6)What we need to do is get others involved.... Get it into people's minds and get them to think about how it relates to their department (Peter) 7)At the moment this is still perceived as an optional and it needs to be as integral as health and safety (Andrew)	SD to be led from the centre of the organization, with defined roles identified for each department	3)Will you work towards centralising SD as a corporate function, and embedding in each Directorate?

Table 7.2 Presentation given as part of the diagnosis exercise

Group Concerns: The desire for accountability & simplicity	***Group Dynamics***: Idealism V Realism	***My Concerns: Pleased at engagement, troubled at scope***
e.g.1 Trevor: the environmental side is easier to justify probably now…the evidence is clear. Community, local side of things is something that people wouldn't necessarily agree with and it's a bit more woolly and it's a bit harder to say what the benefits are. **e.g.2** Helen: for me the key one is the Commissioner's sustainability assessment of suppliers.....maybe we should be trying to assess them against sustainability criteria Andew: see I just think… with that kind of stuff we can make things far more complex than they need to be. I mean actually I think it's probably Helen, plus maybe 1 or 2 other people writing down on 1 side of A4, what are the key basic requirements you would require of any provider of service? So it's just you know really noddy dog simple things…you have a scheme for recycling paper, you have 5% reduction in your energy on a yearly basis, you have considered and demonstrated an evaluation of using a sustainable energy supplier, you meet BREEAM (Building Research Establishment Environmental Assessment) standards in any building. **e.g.3** Claire: so how do you want to take something like that forward? Do you just want to say…go on then Helen Andrew: that's the usual way Claire: or is there another way …you might involve different people to write that list with you? Andrew: it's not so much the process, I just don't think the issues will need to be terribly complicated cos I think we're starting at nothing, and then anything is better than nothing.	**e.g.1** Helen: we're hooked on GDP as a measure of happiness and health but if you look at the evidence, the evidence is that you need a certain level of income but…. Andrew: yeah but the diet was healthiest immediately post war when everyone grew their own vegetables however I'd have to say I wouldn't want to go back to growing….I kind of like growing vegetables but I wouldn't want to go back to post war period..... I think…I mean this is an important discussion, but I think it's like a team in a blue square premiership north planning for how they play Barcelona? Helen: what game are we playing? Andrew: sorry….if we define the aim of what we're doing is to make the maximum impact on SD quickly, then you don't go anywhere near any of those agendas because there is so much bog standard perfectly obvious everyday stuff that we are not doing systematically before you ever get into the **ethereal stuff** and in any contract negotiation, the thing to implement is the stuff that's the non-contentious stuff.	**e.g.1** *instead of debating, or wanting to debate, led by Andrew, they were all keen to tackle 'no brainers' and just really wanted to get on with these* **e.g.2** *There were some discussions about GDP as an indicator of health, Helen drawing attention to the limits of this, but people really scoffed at this and most wouldn't accept that poorer people could be healthier, or at least that there was a threshold.* **e.g.3** *They made it sound so simple! E.g. 5% decrease in CO_2 specification for providers. Will they even be able to measure this? Are the targets appropriate? Do they need to be negotiated, specified to different providers or should they be vague enough to be generic? I think this holds great potential to unlock some of the people issues and complexities and I want to be able to capture this somehow.*

Table 7.3 Patterns identified within the diagnostic and action planning stages

Group Concerns: The desire for accountability & simplicity	***Group Dynamics***: Idealism V Realism	***My Concerns: Pleased at engagement, troubled at scope***
e.g.1 Iain: we've agreed that we're going to settle on a sustainability award, a Star Award so that's one action to take forward Claire: so who's doing that? Andrew: yes, that's good actually, it's one simple thing but it's quite visible isn't it and people like visible stuff? Iain: yeah, reputation **e.g.2** Claire: carbon accounting per dept is the suggestion here Andrew: but you know something, it would actually be interesting to say I don't know the finance dept is responsible for X tonnes of carbon, I'm not quite sure I know what that means particularly Trevor: no, but in comparison to others, it would be useful to see Andrew: please stop using pencils or something until you can….. **e.g.3** Peter: I think the key thing for me is going to be getting this inaugural meeting set up for the sustainability/corporate citizenship group	**e.g.1** Helen: but I mean you…you know we're not…things now….when you look back you think why did they do that but at the time people were trying really hard to make something much better than they had before….and they did involve the community in that and at that time, that process was really hard to do Andrew: and I think that's right but I think for me, it's that balance between involving the public but not letting the public get what they want. If the public had their way, they'd bring back hanging….in the nicest possible way. **e.g.2** Claire: So have we got a bit of a vision for a sustainable community? Helen: Frieburg. Claire: What's Frieberg? Andrew: it sounds like a chocolate. Claire: Expand Helen? Helen: It's a sustainable community, Germany I think, it's got high density housing, very fuel efficient housing, housing near places of work, cars are…the default is not to have a car unless you've got a really good excuse, argument for having one for example you're disabled. Walking, cycling routes are the norm and I would really like to go there for a visit. Andrew: but isn't that a bit like 'legoland'? It's not real. Helen: it is real. Trevor: I mean my first thought on a Utopian community is Centre Parks. Cycling around everywhere. But that's what I think of when someone says a sustainable community but it's not reality. Helen: Frieberg is reality. Trevor: that's reality? Helen: cos it's a real place and a real town.	**e.g.1** *Lots to report as always and mixed feelings. They came up with lists and actions for each-other regarding these issues so that can't be bad, but why has the list gone off the radar?* **e.g.2** *All seemed to agree with the overview of the Co-operative Inquiry process but I am a little concerned that I did not portray the transformational element of AR as much as the instrumental, which is the bit they were interested in.* **e.g.3** *Helen asked me after why I was frustrated. She said 'are you trying to get your vision of SD progressed?' and the truth of this is yes. I think I am. My vision of SD is to learn and create space to do so. I haven't had much explicit agreement that this is theirs. I think I thought I would get that today and I didn't, hence feeling very unsettled when I left.*

Table 7.4 Patterns identified in the evaluation and 2nd diagnostic stages

Group Concerns: The desire for accountability & simplicity	***Group Dynamics***: Idealism V Realism	***My Concerns: Understand group constraints and seek to develop ideas outside***
e.g.1 Peter: So a real tangible output from that is going to be then that we start using carbon emissions, CO2 emissions as a basis for reimbursing people for their travel rather than engine capacity so it will….I think that's a really good….yes it's going to make a small difference in Carbon footprint terms but in terms of showing what this organization can do…that we are making changes, that it's not just about recycling bins in the corridors it's starting to get beyond that. So I'm very pleased about that. **e.g.2** Andrew: And actually it will help the SD agenda in that money is going to become far tighter so the meeting we had with the execs this morning so in the chase to reduce what we spend, we're looking at a 20% reduction in paper, stationary. 10% reduction in miles…if that makes sense, that is lease car journeys whatever. We're going to be reducing taxis um….so these were set this morning and will come out. And also I think we talked about a 10% reduction in electricity and we will have people who just specifically identified….will have responsibility for ensuring those things happen. The key thing being its about making sure that the organization, our organization is under as much pressure as providers will be in the future so we can demonstrate that we are doing those things.	**e.g.1** Helen: To me the Health and Environment Partnership is the key because the guy who leads on SD for the City Council and myself in my normal capacity worked together to develop that partnership which helps both organizations and others as-well in the City. Claire: it does seem like there's a lot of partnership work going on already. Helen: the trick is to understand more what goes on in those partnerships and link those together. Andrew: there's also for those partnerships, there's a need to make them business proof and the problem at the moment is it feels kind of….a bit like um….a bit more like a knitting club than it does a kind of…a business unit. Helen: that's cos it's not got a fund. It's not got a….. Andrew: yeah for HEP to be effective it needs to feel like a business entity as opposed to a collection of people with a shared interest and it hasn't quite got that. Helen: the reason for that though is that it used to have a fund of money that it allocated and that disappeared. So it needs to have a purpose and it needs to have resources and then it can become a business if you like, much more business-like.	**e.g.1** *Overall, very happy with how today went. I feel I have been able to articulate my thoughts on the importance of process.* **e.g.2** *Whether process factors can be addressed sufficiently is another story and certain issues (i.e. Helen not being replaced) make me feel like this may not be the case in the PCT. The pressures to save money are currently too great. People see the importance of these points, but they just don't feel able to put finances into it. The overwhelming need is to make savings.*

Table 7.5 Patterns identified in the final evaluation stage

7.3.1 Group diagnosis and action planning: a narrowing of the SD agenda

Following agreement to commence the Co-operative Inquiry, I agreed to organize some activities to fulfil the diagnostic stage of the first cycle. Led by the map, I organized the diagnostic process around the two categories of espoused theories of NHS SD which I had previously distinguished: Environmental Resource Management (ERM), and Sustainable Development as Public Health (SD as PH). As detailed in Chapter 5 I carried out diagnostic interviews with 11 people who were, in some format, involved with the organization's current SD work. These comprised the group members themselves, directorate champions who had recently been recruited to assist this agenda, external consultants working on specific projects, as well as a number of staff with no specific role allocated. I also carried out some shadowing of the activities of Helen (SD Lead) as the opportunities arose which were expressed in the Methods Chapter as the less formal parts of the process. Interpretation of the interviews and this shadowing, were guided by the checklist which I include in Appendix 7b, designed to ascertain current theories-in-use, vision for the future, and associated challenges and opportunities, with a view to informing action.

Therefore in this case, I used my own interpretation gained through the interviews and participant observation, to engage the group in developing a group interpretation. I did this through a presentation that I gave in the first session, which included the following aspects:

a. My description of current theories-in-use, and any identified gap between these and what is espoused in policy
b. Looking ahead: identify will & potential for change, suggesting contextalised vision
c. Directed questions: helping the group make decisions on future actions

I organized this presentation around their progress towards two of the espoused theories of NHS SD ('ERM' and 'SD as PH'). I also provided an interpretation of their overall approach to managing SD, as this seemed to be a key concern for them at this time. I summarise this presentation in Table 7.2 which I also describe in more detail below.

To summarise what I presented then, with respect to SD as PH, I identified that whilst Helen ran some community projects with these ambitions (as were the focus of the interviews in Phase 1), these were not linked to core organizational activity. They were run from one Department, called the Health Equalities Department, and Helen was responsible for

allocating PCT funds available for this work, to external partnerships so that the work was mostly carried out by others. As I have already introduced, whilst the projects that resulted from this partnership approach were rooted in socio-ecological models of health, they were not connected to core NHS activity. In policy for SD as PH, it was espoused that the same principles which underpinned these partnership projects needed to be integrated into how the organization conducts, and even plans, its core business in relation to health treatment. The first question I posed to the group, as indicated in Table 7.2 was therefore:

1) To what extent do you wish to develop SD as PH, and move it from the margins to the centre of your organization's strategy?

With respect to ERM, I ascertained that an internally focused agenda had recently begun, supported by external funding, along with external consultants leading on a Carbon Reduction Project. There was a lot of enthusiasm about the savings which could be made by this agenda, as illustrated by the 'will/potential to change e.g. 1' (Table 7.2) from Andrew (Chief Executive). However, some problems were starting to arise concerning the engagement of staff across the organization required to achieve these. The 'conversational map' helped me understand this as a strategy issue. The easiest kind of strategy to implement within the hierarchical NHS is a linear form. So, within ERM, one example of this would be a technical fix in the form of a change of energy supply where one department can implement the change, and resulting efficiencies are easy to predict. However, much ERM requires changes to every-day behaviours of people across the organization, and this is much more complex to achieve. More participative forms of strategy are required for this, and the organization may find these aspects more difficult. The response of one of the consultants employed to deliver ERM, 'will/potential to change e.g. 3' (Table 7.2) was illustrative of this, in which concern was expressed for the lack of engagement from staff whose co-operation was necessary to succeed. Projects for organizational change cannot be delivered from the outside. Just as I have already referenced Chapman (2004 p.11) who argues that you cannot 'deliver' healthcare in the same way that you can 'deliver' a pizza, neither it would seem, can you 'deliver' behavioural change; something much more participative is required. In recognition of this need, the consultants had embarked on some staff development, focused on what they called 'directorate champions': people to lead engagement for their respective departments. This aspect appeared to be a vital part of any effective strategy, and would need long-term commitment. A quote from someone nominated to be an SD champion for their part of the organization, shows these people are not always experienced in the staff development

activities required ('will/potential to change e.g. 3', Table 7.2). This led to the second question which I posed to the group:

2) Should staff participate more in ERM projects, rather than them being largely led by consultants?

In addition to these strategic concerns about how ERM can be achieved, I also noted from this exercise, that current scope of ERM was much narrower than it could be. As has been described, the 'conversational map' shows that one interpretation of ERM sits comfortably in the dominant organizational paradigm, and this is concerned just with internal resource efficiency. However, an alternative interpretation of ERM is possible, and this is concerned with the potential to have external influence on resource use, and sits comfortably within the ecological paradigm of SD as PH. In this interpretation, it is recognized that an NHS organization's internal resource use is significantly smaller than that which it indirectly uses through its providers of goods and services. This aspect of ERM however, relies on the values of the socio-ecological model of health and a role for the NHS within this model, to justify significant involvement. It became apparent that the role of a PCT is almost exclusively to spend money on other organizations to deliver the services the PCT decides are priorities for its community. Therefore, its internal resource use was much smaller than that which it influenced through this commissioning role. Trevor (Finance Lead), with his knowledge of the budgets, was particularly aware of this, making the point that if the PCT is really serious about having an impact on SD, then it has to consider its influence through its service providers. Based on this interpretation of the current approach to ERM, and the potential for change, I therefore presented a contextualised vision to the group, involving improved staff support to enable cross-organizational participation, along with the incorporation of ERM into the commissioning process. I asked the third question:

3) Should ERM extend to service providers?

With respect to the organization's general approach to SD, it was clear that its current position had been marginal. SD had been the sole responsibility of Helen, located within a non-central department within the organization, and it was from this position that it had developed to date, utilising outside assistance where possible. As described in the 'conversational map' for this context, the dominant organizational paradigm supports this specialist approach to SD; different departments are responsible for their own agendas, and do not interact with each other to any high degree. In this format SD is viewed as simply

another distinct task, and not necessarily related to others. The 'conversational map' helps us understand that this form of working is suitable for narrow interpretations of ERM, in which technical fixes can be organized from specialist teams. It is also suitable if SD as PH is to be limited to ad hoc projects not related to core business. However, this is not suitable if any broader interpretations of ERM, and certainly if broader ambitions of SD as PH are required. If the organization was to consider how it could best influence ERM internally and externally, as well as other socio-ecological determinants of health through alignment of its activities to these ambitions, then it must receive central leadership and support, and all departments must become more aware of how they can contribute to this. There was much will identified to make such changes, as illustrated by the supporting quotes 'will/potential to change e.g. 6 and e.g. 7' (Table 7.2) from Peter (Governance Lead) and Andrew (Chief Executive), respectively.

Through this exercise, I began to understand the vision of SD for the organization which I thought I could see emerging in people's responses to the interviews and from the time I had spent shadowing Helen's practice. This was a health organization concerned with running its internal resources efficiently, but it was also extremely accountable to its community and therefore concerned that this was done as effectively as possible. SD was beginning to be seen as an important aspect of this vision. From my academic experience of organizations and SD, I knew that some had adopted stakeholder accountancy approaches to ensure that their efforts were in line with the local community, and that these efforts could be relevant here. The work of Zadek (e.g. 2007) is about how organizations can develop participative relationships with their communities with a view to developing SD accountability together. I recognised that the PCT already had well-developed relations with the community, but that these did not yet link to its SD strategy. Using the knowledge I had obtained about the different departments within the organization throughout the interviews and the participant observation, I suggested roles for different departments who were either not yet engaged at all, or not yet engaged very much within what could become a stakeholder accounting approach to SD. For example, at the staff meeting I had attended, I had learnt that the Trust had received national recognition for the level of knowledge it held about the community it served, and that this was held in a database accessible to all through an open-access website called NOMAD (Nottingham City Council, 2009). I proposed that such data could possibly be used to feed into any centrally-led SD strategy, by helping to understand priorities that could be targeted. I had trialled this

suggestion in the individual diagnostic interview I held with Peter and had received some interest:

> hadn't thought of that. We're known for good PH data gathering. Proud of being nationally recognised for that. What do we then do with that info? (Individual diagnostic interview with Peter)

There were 'Patient and Public Involvement Teams' which could help develop a system of accountability which included more qualitative indicators of SD to complement the quantitative indicators which seemed most easily developed. In order to link such quantitative indicators of resources to financial savings, I proposed that the 'Finance' and 'IT' Departments could use their accounting resources. I proposed that the 'Workforce Directorate' could be engaged to develop understanding of the role of the organization in staff health and wellbeing as well as in recruitment. In short, I tried to suggest matches between different parts of their organization and components of a broad systemic version of NHS SD based on stakeholder accountancy, which seemed to be reflective of their needs. In outlining the whole potential spectrum, I did not expect them to address all parts, or indeed to treat my ideas as instructions, simply that they would see them as ideas with which to make conscious decisions about the parts they wished to address, which hopefully would inspire them to think more broadly than they may have done without this input. Whilst many of these concepts had informed the community projects Helen had developed in external partnerships, I was not aware that the organization had strategically set out to assess its role in such an ambition to develop joint objectives for community SD. I was interested in how far they wished to go with this.

The purpose of the whole diagnosis exercise, including the questions posed to the group, was then to establish the extent to which they wished to advance systemic theories-of-action in their SD Strategy. I tried to make it clear that choosing to attempt to progress systemic theories was likely to be difficult in the context of an alternative dominant organizational paradigm, but that the process of Co-operative Inquiry that we were engaged in was designed to assist this. I also made it clear that I understood that any decisions made had to be practically possible, and that this would likely preclude some suggestions I had made at this time. I frequently reiterated that the decisions were theirs and that they could dismiss any suggestions as they saw fit. The group's responses to each of the questions I posed were clear. A decision was made not to broaden their approach to SD as PH; in fact they decided to do the opposite and made an explicit decision not to get bogged down in these aspects. However,

with respect to ERM the Group did decide to broaden their approach. They wished, not only to get better at internal ERM, but to use their influence through the purchasing of services, to demand ERM from their provider organizations. ERM therefore became the focus for their efforts. They understood that this revised format for ERM required higher levels of engagement from across their organization, and they therefore developed a second objective which they termed 'embedding': to make ERM part of everyone's role in whatever Department they were in. To summarise then, the group agreed on two objectives for this Co-operative Inquiry:

1) In order to achieve external ERM, to develop a checklist for commissioners containing the SD criteria they expected of them as contracted provider organizations, and integrate this into the commissioning process
2) In order to embed internal ERM, to develop cross organizational governance structures, including staff support

It was agreed that the first objective would be the focus of actions following this meeting. Helen and Peter would be responsible for drawing up the checklist, and Andrew would be responsible for introducing the idea to key service providers who would be affected. Through the process of the group discussion on diagnosis and action planning, which led to these priorities, the three themes I introduced with reference to the proposal meeting were again influential. This is illustrated in Table 7.3.

7.3.1.1 Group concerns in diagnosis and action planning (see Table 7:3)

As Table 7.3 illustrates, the desire for accountability remained strong, influencing the decision to keep the agenda narrow, and excluding any explicit focus on SD as PH. Quote 'group concerns e.g.1' (Table 7.3) from Trevor (Finance Lead) illustrates this well. He describes how environmental resource efficiency is an acceptable agenda, and its impacts can be measured. The desire for simplicity also remained extremely strong, illustrated by 'group concerns e.g.s 2 and 3' from Andrew (Chief Executive) in which his optimism, that development of the criteria for suppliers was a straightforward task, was evident.

7.3.1.2 Group dynamics in diagnosis and action planning (see Table 7:3)

The role of Andrew (Chief Executive) as a realist also remained strong and his quote 'group dynamics e.g.1' (Table 7.3) illustrates this. In discussions about the potential to define a broad role in SD for organization, Helen raised the issue that health and wellbeing was broader than that which could be measured by GDP. Led by Andrew, the response from the group was that

such ideas were unsettling and poorly understood. In these discussions, they were even described as 'ethereal' which the Oxford Dictionary defines as 'other worldly visions' (2011). In this example, the use of humour by Andrew as a possible deflection away from the controversy being discussed was evident. There was some discussion that this focus on ERM could be seen as a stepping stone to something broader in the future, but there was currently no appetite for any definitive plan for achieving this. I include this quote which arose from these discussions, but which is not included in the Table 7.3, to illustrate this:

> but that's all good cos that gives us a clear strategy and the strategy is you take people to the place where they're comfortable and the point where we've systematically done that is the point at which we can then work on the next bit (Andrew Diagnosis and Action Planning)

7.3.1.3 My concerns in diagnosis and action planning (see Table 7.3)

At the end of this meeting the Co-operative Inquiry group appeared very pleased with progress. They felt they had agreed on more specific actions than was the case in many meetings they attended and I think that the size of the group and the spirit of relaxed informality we had adopted combined with a commitment to act, may have contributed to this. I was heartened by their positivity as this meant they were more likely to remain committed to the group but my journal shows how troubled I was by the narrow focus they had agreed. This is illustrated by the quotes 'My Concerns e.g.1 and e.g.2' (Table 7.3). As evidenced by the quote 'My concerns e.g.3' (Table 7.3), I was also troubled by the strong desire for simplicity which led to the commissioning exercise being portrayed as easy. Helen and Peter were expected to complete it easily. I could foresee many unresolved issues and that these would be left to Helen, at least now with the support of Peter, to solve.

7.3.2 Group Evaluation and 2nd diagnosis : a further narrowing of the SD agenda

I decided that two things needed to become the focus for the evaluation session which would follow. First I needed to introduce a process of evaluation on their agreed actions which allowed for detailed reflection on the complexity of achieving the task set, which allowed for group members to understand why it may have not been completed as anticipated, and which allowed them to seek ways to really overcome any obstacles identified. My second challenge was more profound and concerned the narrowness of the agenda they had considered. In order to allow any significant revisioning of the current organizational paradigm, I would have to invite group members more directly into the transformational processes designed to help them do that. I was not convinced they had accepted that the aims of Co-operative

Inquiry are not simply about getting things done, but also about developing the capacity for transformational learning process, and I was keen to raise this point more explicitly now.

I aimed to respond to both these challenges in an evaluation session. With respect to the first (the need to appreciate complex organizational processes in achieving change), I organized a group reflective session designed to allow members to reflect on individual progress with their agreed actions. 'Storytelling' was used to help those who had agreed to do specific things in relation to achieving the criteria checklist (Peter, Helen and Andrew) and for all members who had agreed to do different tasks in relation to organizational embedding, to recount their experiences in a revealing way. With respect to the second (the need to critically reflect on group process itself), I decided to give a brief presentation to review the purposes of Co-operative Inquiry in order to highlight its ambition for critical reflection as well as establishing and reviewing targets. I would seek feedback on the perceived relevance of these ambitions and hope to engage group members in a discussion of how they could respond.

Figure 7.3 is an image of this flip chart used to record the storytelling and group discussion which took place, along with some illustrative quotes. It shows the identification of five categories of issues described as key factors in what had happened when objectives were attempted. With respect to the objective of the checklist, the need for improved expertise, along with appropriate organizational systems for monitoring, was identified. With respect to the broader objective of organizational embedding, resources and staff engagement were identified along with a recognition that success was to some extent dependent on other parties and external context. In addition to these, some general reflections on progress were included as a category to help capture the general mood of the group. These factors are now described in detail and interpreted through the 'conversational map' to aid understanding of how they arise. In order to reference the quotes on the diagram, they are labelled a,b,c by person e.g. Peter, a.

The exercise succeeded in revealing the complexity of achieving the task of the suppliers' checklist. A range of organizational factors were revealed as having prevented the task from proceeding as planned. The group summarised these on the flip chart under the three headings of organizational systems, expertise, and resources. I provide an overview of the discussion which led to these categories.

Peter had managed to draft a broad checklist relatively easily and this is shown in Figure 7.2.

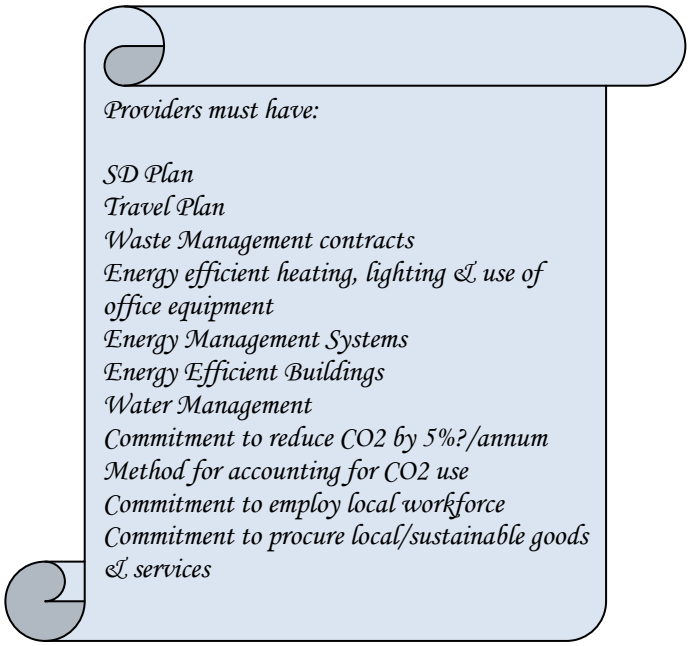


Figure 7.2 The draft checklist developed by Peter

However, it soon became clear that in order to fit these broad criteria into the existing organizational governance systems, they would have to be measurable, robust, and easy to monitor by those people who currently lacked detailed knowledge of SD: specifically those responsible for procurement and commissioning. Peter's quotes (b & c, Figure 7.3) show that there would need to be some formal monitoring arrangements, possibly in the form of an assessment Board to ensure this happened. There was also the question of expertise. In drafting the criteria, it was clear that more expert knowledge was required to move from these broad criteria to specific requirements. For this, Peter looked to Helen as the expert. Here was a major sticking point.

Very apologetically, Helen revealed that she had not been able to fulfil this task. She was the lead for SD, but the checklist was extremely broad. As Helen's quote c (Figure 7.3) illustrates, this was partly because she did not have time; the research time to do this for all criteria would have been extensive. But it was partly because some criteria were outside of her control. With her knowledge of the external influence on the SD agenda, the specific example Helen gave in explaining her resistance to tackling the task was the criteria for procuring local and sustainable goods and services. Helen knew that this had been the topic of quite controversial debates. Helen described how there are queries, not clearly resolved, about the

legality of large public organizations specifying who they contracted with on the basis of such criteria and whether this breached EU competition law:

> It's almost like you shouldn't ask an expert to do anything really cos it's almost like you know too much so I'm thinking, there's a lot of European legislation and guidance around this….there is a way forward but….you've got to make the right choice of word of you'll get in trouble (Helen, storytelling 1)

Looking to one person for clear, measurable targets is not realistic when SD is a negotiated, emerging and changing concept, subject to external factors such as legal developments, of which it is not possible for one person to keep abreast.

Finally, this was summarised as a resource issue. Andrew (quote a, Figure 7.3), discussed the need for such expertise to be spread around the organization, implying that people such as Peter would have to develop expertise as there would not be the resources available to pay an expert, or someone in Helen's role, forever. The desire to embed SD was therefore being seen partially as an efficiency issue, potentially removing the need for roles like Helen's, and therefore saving money. This was another clear example of the mixed bag that this was for Helen. Was this embedding exercise writing her out of a job?

With respect to the second objective (embedding), Iain (quote a, Figure 7.3) described how other issues seen to be priority areas for the NHS, in this case Swine Flu[17], had diverted resources from less urgent issues such as SD. The NHS in its present guise prioritises certain short-term, measurable gains over long-term population health. The response to Swine Flu reflects this approach. Andrew (quote b, Figure 7.3) discussed how difficult it was to be a leading organization with respect to SD, because there was no consistent approach from other public organizations the NHS had to work with. He cited the example of how the Regional Development Agency had decided not to fund a major local food sourcing project for the NHS in the region. This lack of consistency in the message from Governmental organizations, and a lack of support, made it very difficult for an individual organization to go it alone. Peter (quote d, Figure 7.3) discussed how more complex aspects of SD would clearly require them to work co-operatively with others to the extent even of joint commissioning of services. SD in its broadest sense, they concluded, was not something that could be delivered by a single organization..

[17] Swine Flu pandemic recorded in the UK in summer 2009

'if a procurement procedure goes ahead where sustainability is considered a significant factor, it's having some sort of expertise on board on that assessment panel to sort of ask the right questions…what's a good travel plan?' (Peter, b)

'it's about having some sort of tangible way to guide these people who are commissioning services to say, well what are the issues that we should be looking for?' (Peter, c)

'Some of these things there is a technical side to that we have to accept we don't have the resources for cos we're not set up as an oranisation to do that' (Peter, a)

'it seems a simple thing and I kept thinking, 'why am I not doing this?'. It seems a simple thing but actually it is simple but we've got to get it right and we've got to get the right wording in'. (Helen, a)

Objective 1: Criteria Checklist

'the reality is that PCTs have to reduce their management costs so the reality is we will be smaller and therefore it needs to be an integral part of people's roles like Trevor, like Peter and others, that's the way which we have to take it forward. It's not by the kind of the individual (Andrew, a).

'swine flu in the last 3 months has…I don't think it's stopped us doing things but I think it's put additional pressures on people' (Iain, a)

Objective 2: Embedding

'Everyone has their view and probably sees SD as purely being about the environment. It's more than that – it's about sustainable communities. So I think there's a bit of reluctance from some people to do anything. Still at the stage perhaps when people think it's still about turning off the PCs and not much more' (Trevor, a)

I've put 'sum of the parts' you know cos it's about understanding... being tactical but it's about somethingthat's meaningful to people and that creates the bigger whole really doesn't it? (Peter, e)

'When we're developing the new St Annes joint development centre, sustainability will be a key part of that and that will be part of the specification for the new development (Andrew, c)

General

'I think one of the barriers to this is kind of getting public bodies lined up and understanding the sustainability agenda' (Andrew, b)

'We can make staff put things in the right bin if we have to but to develop shared ways of working, joint protocols, joint commissioning, is another step isn't it?' (Peter, d)

Figure 7.3 The first evaluation exercise

The evaluation of progress towards the two original objectives resulted in a further narrowing of the agenda. Andrew had not explicitly tackled his action, which was to discuss the criteria checklist with the providers of services likely to be affected. A discussion followed the evaluation exercise in which the recurrent themes again appeared to influence this narrowing. It was decided, although not very explicitly, not to continue with the checklist at this time. Instead Helen discussed how an analytical piece of work on this subject was being conducted by the SD Non Governmental Organization called Forum for the Future, and that it would be worth waiting for their advice before proceeding.

At the start of this section on evaluation, I noted that I had two objectives for the session. The first was to help to reveal complexity in achieving the checklist. The second was to remind the group of the Co-operative Inquiry principles, and how this could help to develop organizational vision for SD towards espoused theories. The brief presentation I gave on the importance of group process within Co-operative Inquiry was a difficult thing for me to do. It followed immediately after the storytelling, throughout which I had a very strong feeling that group members were not interested in the storytelling per se, but only in the revelations themselves. This feeling arose because the group were paying little attention to the instructions for storytelling I had given them. It was difficult to get them to listen to these, and then to recount their experiences in the format asked. With persistence, I think the stories were revealed but this relied on me focusing on the process to ask the right prompts; they were engrossed in the outcomes. Neither did they engage very fully in the post-it documentation which I asked them to do, evidenced by the dominance of my own handwriting on the post-its as I completed the majority of these, even though they were asked to do so. Following this, I felt much uncertainty about their acceptance of these participative and very qualitative processes and it took a little swallowing of pride to then give the presentation on the importance of process when I felt this wasn't their concern. The presentation was a review of the purpose of Action Research and Co-operative Inquiry in particular, using the diagram of Reason and Bradbury (included in this thesis, Figure 2.3) as a guideSome aspects of the presentation were met with much enthusiasm, specifically the aim of AR as contributing practical knowledge, in contrast to the development of purely abstract knowledge in much academia. They felt that it was more useful to engage in this which they saw as a very practical exercise, than to be the subject of traditional academic research:

> It's about….you know the learning here, the work that we've been doing with you here is the bit where the learning happens, cos you know if what you've learnt from doing this work with us, gets put into an academic paper and made into a top tips for sustainability for PCTs to take it forward, I just wonder what would happen with that. It might be produced in a nice little brochure, sit on someone's shelf and think I must look at that sometime.....actually doing this work with you, and us talking about it and learning as we go along (Peter, response to presentation on Co-operative Inquiry).

> I think the other thing is if you think of it the other way round, with the exception of Helen, how many of us have sat down and read any academic theory or paper on sustainability? And you could say that across the organization, and I think the answer for 260 people, well 1400 people would be 1. What impact has it had? Not a lot and the things that actually make a difference are….people sitting down talking thinking about what's important? Why it's important? (Andrew, response to presentation on Co-operative Inquiry).

However, the issues of personal engagement and critical reflection were not commented on, neither were they disputed. In Table 7.4, I provide an overview of the manifestation of the continuing patterns of group concerns, group dynamics, and my concerns, which I now describe. This description shows how a key decision was made at this stage to narrow the agenda even further, focusing only on internal ERM at this time.

7.3.2.1 Ongoing group concerns (see Table 7.4)

After the evaluation and some further diagnosis, the group changed their objective regarding ERM, from broadening this to include the providers who they paid to deliver services, to focusing solely on their own internal practice. This was linked to a perception that did not know how to proceed with the checklist, and that it would be better to wait until they had a better understanding of what it entailed, in the future. The group therefore turned ever more inward and decided that engaging with external factors was beyond their capability. They could wait for the commissioning guidance to be developed by external experts, Forum for the Future, and therefore leave the criteria checklist for now. Reflected in Andrew's observation that the Regional Development Agency did not support SD as PH, there was a sense that they lacked permission to engage with this agenda.

They could, however, step up their efforts to manage one aspect of SD, namely that of internal CO_2e emitting activities and engage with the complexities of organizational process, just discussed, in a way they felt comfortable with. As illustrated in the quote 'Group Concern e.g.2' (Table 7.4) from Trevor (Finance Lead) they would develop carbon accounting, utilising the expertise of the consultants they had working with them on carbon reduction to help with this. That Trevor was now in direct contact with the consultants without the need for Helen as an intermediary, as had previously

been the case, was a positive example of something this Co-operative Inquiry had achieved. This had allowed Trevor to develop his own ideas and use his knowledge of the organization's accounting system to imagine how CO_2e emissions by department could be incorporated into this. A vision whereby every department had a carbon budget, set by senior management, became the new focus for the group. The checklist had revealed itself as too complex, relying too much on external factors and internal time and resources they did not have. Carbon Accounting was more attractive as, whilst it would clearly take Trevor's time to develop, the infrastructure (i.e the accounting mechanisms) was to some extent already in place. External consultants were helping to plug the gaps. It also sat comfortably with the command and control styles of management accepted by all. In addition, it was what the Department of Health wanted and it fitted well with the ambitions of the Carbon Reduction Strategy (SDU 2009). If they could achieve this, they would be seen as leaders in the field.

In addition, Iain (Communications Lead) was tackling another very visible, achievable objective, which was to develop a staff award to inspire staff to engage in ERM. This was evidenced in 'Group Concerns e.g.1' (Table 7.4). As shown in 'Group Concerns e.g 3' (Table 7.4), Peter would develop the internal management group for SD. Helen, on the other hand was now due to leave the organization. In a development which had important implications for the group, Helen had been offered a secondment opportunity with the regional Department of Health Public Health team, where she would be developing supportive structures and policies for all NHS organizations in the region, including this one. It was agreed that she would still attend the group meetings. The implications of her actually leaving her role, and leaving a gap in the organization, were never explicitly addressed. Iain (Communications Lead) and Peter (Governance Lead) both expressed concern about where the expertise would now come from to lead this agenda, yet Andrew continued with the argument that if no replacement was made, this would actually fit well with the need to embed and spread responsibility throughout different people's roles. What next for Helen's role?

> Communications and all of us can be the conduit but I think we need that driver (Helen's replacement) to push a lot of it out and provide us with the raw material to communicate to staff. We need to keep that production line going of effort really (Iain, group evaluation and second diagnosis session)

> You're right but I think the balance was wrong before and I think Helen's description.... you know everything to do with sustainability was Helen's whereas actually it isn't, the contracting team, finance and all the rest of it, it's all of the organization and to help them there is an expert (Andrew, group evaluation and second diagnosis session)

7.3.2.2 Group dynamics (see Table 7.4)

Group dynamics remained the same. Both examples 'Group Dynamics e.g.1 and e.g. 2' (Table 7.4) are illustrative of Helen's attempts to discuss her ideal, based on real examples from elsewhere, and these ideals not being given much credence. 'Group Dynamics e.g. 2' (Table 7.4) is a particularly illustrative example of how the dialogue between Andrew and Helen, about what constitutes a sustainable community, results in another group member siding with Andrew's realism. Any discussion of an alternative vision to that which dominates is rendered impossible. It is also a particularly good example of his use of humour (likening 'Frieburg' which was Helen's example of a sustainable community, to chocolate and to legoland).

7.3.2.3 My concerns (see Table 7:4)

As illustrated in quote 'My Concerns e.g.1' (Table 7.4) I was left with mixed feelings again. The group themselves appeared very happy with progress and for this I was, as always, grateful. This made me feel useful again. However the agenda itself had been narrowed again. More and more the group was looking at what it could control. Each member of the group now had a task to do something they could control; emissions accounting for Trevor, a staff award for Iain, and the internal reporting group for Peter. Helen had now left the organization (although remaining in the group) so she no longer exerted as much influence on the internal agenda. She explained how she would follow up on the issues of the criteria checklist once external help had been secured. Whilst her prospects within the organization were in fact becoming narrower, she had secured a secondment which should help her to maintain her emphasis on broader concepts of SD and PH. In her regional role she had renewed links to central NHS policy, via the SDU, and in addition she had a role of supporting all organizations within the region. She now had access to the levers that could help organizations like NHS Nottingham City. She was keen to explore this further and, as I explain in the final section describing the Co-operative Inquiry, so was I.

As illustrated in quote 'My Concerns e.g.2' (Table 7.4) I also had mixed feelings about the attention the group were paying to process. As mentioned above, they seemed to be finding this exercise extremely useful but having tried to engage them in the transformational potential of Co-operative Inquiry, I was met with little enthusiasm. They were interested in the practical angle I brought with me as distinct from traditional academic research, which they held little regard for in terms of being able to help them with their issues. However, Co-operative Inquiry requires them to engage and critique their own practice in order to develop visions they previously would not

be able to do. This was met with far less interest. Quote 'My Concern e.g.3' (Table 7.4) provides evidence that I was beginning to understand the reservations I frequently held about group process, as being the result of a gap between what I had intended and what the group were in a position to achieve. In preparation for the final group evaluation, which I describe below, I believe that I significantly changed my approach.

7.3.3 Final group evaluation: exploring the potential to build association

The purpose of the final group session was to reach some conclusions about what the group had learnt, and how this could influence what happened in the future. To prepare for this final evaluative session, I therefore held individual interviews with group members where I aimed to ascertain the extent to which my impressions of what had happened, and my ideas for the future were shared with other group members. I had begun to realise that the group itself was very constrained in what it could achieve. If organizational purpose, as set out by the Department of Health, was to ensure provision of health treatment services along a widely agreed set of parameters, as indicated in the organization's Annual Report (NHS Nottingham City *op cit*), then Andrew was doing his job by ensuring that SD strategy supported that. Internal ERM was easily justified within this dominant organizational paradigm; in fact not managing resources efficiently was counter to it. The effort that this organization was putting into internal ERM, through its Carbon Reduction Plan and Trevor's exploration into Carbon Accounting, were pioneering in the field, and was a course of action that would likely lead to national recognition for the organization. I therefore began to see the importance of engaging other parts of the learning system of which this PCT was a part, and used the analysis from Phase 1 as a reference point to understand this process. Phase 1 revealed that Projects hailed as best practice for advancing SD as PH, and the notion that NHS organizations should influence determinants of health in their wider communities, were a result of pressure from the outside and those external parties with an interest in promoting these. Perhaps Helen in her regional role could help to advance this pressure. In addition, some actors within the learning system are in more influential positions than others. The NHS Sustainable Development Unit (SDU) are resourced to provide support and assistance to NHS organizations to engage in the SD agenda. Whilst their focus is on Carbon Management, their Strategy (SDU 2009) emphasises that this should be achieved within a broader SD remit. Perhaps they could help to advance an ongoing debate about the role of the NHS in SD as PH. After-all, their Carbon Reduction Strategy (SDU *ibid*) indicates support for the Good Corporate Citizenship Toolkit, developed by the Sustainable Development Commission to assist

the NHS with this broader remit. I had been approached separately by a member of the SDU, who had developed an interest in the work of our group, with respect to a new Strategy they hoped to produce for the NHS on the topic of organizational change. I felt that if we could capture the lessons learnt from the group, we may be able to persuade the SDU, via its support for regional networks, to tailor its assistance accordingly.

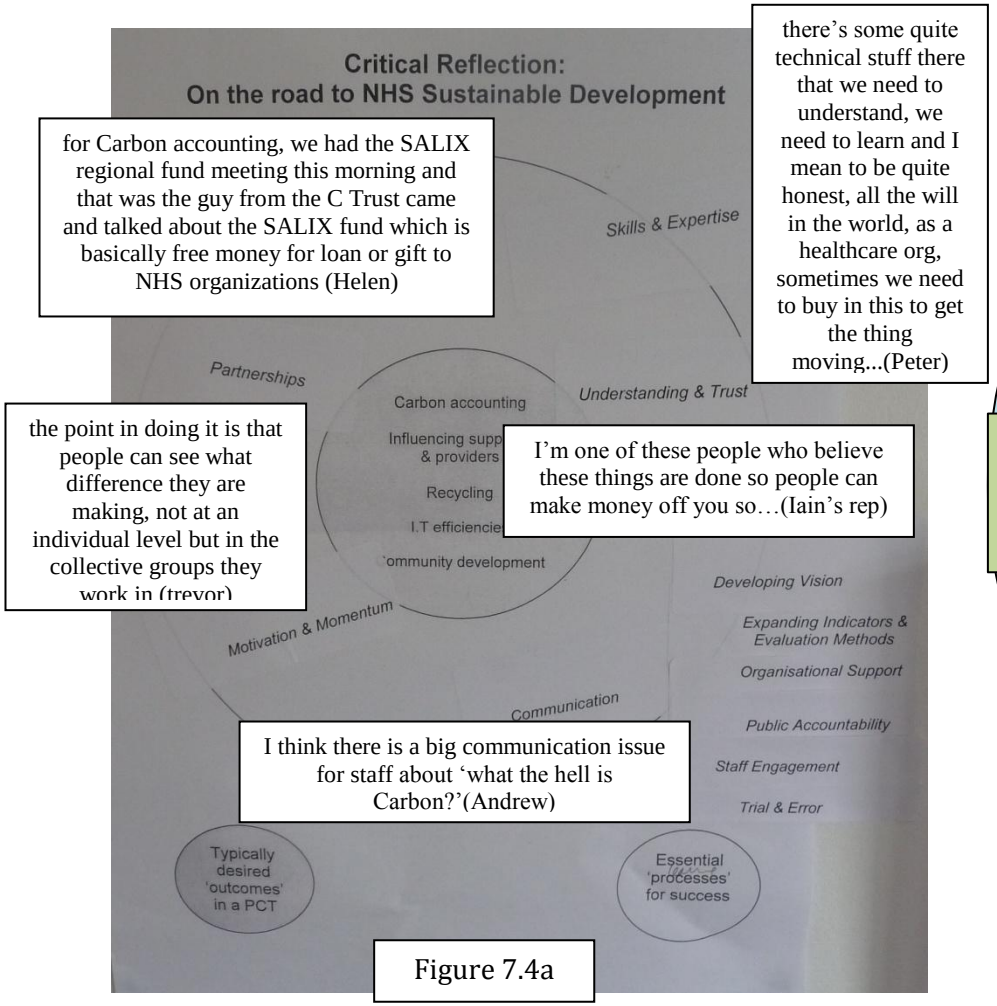
Through their increased interest in the processes of organizational change, the SDU appeared to be considering how best they could support the NHS in these processes, particularly through the development of NHS Regional Networks for SD. Helen had acted as the Regional lead for the East Midlands and now, in her seconded role with the Regional Department of Health, she was even better placed to fulfil this. What she had begun to do out of good will was now part of her job description. I felt that the group experience had revealed the complexity involved in trying to enact parts of the SD agenda. This was evident through its ambitions to develop a criteria list for service providers. In addition I felt that the experience had also revealed the potential for learning experiences, such as those supported by AR, to assist people in learning and responding to such complexities. I believed that the group experience had also served to emphasise the dominance of an organizational paradigm at odds with much of that espoused in NHS SD, and that these learning processes were valuable in revealing these tensions. They would be even more valuable if supported by effective communication channels, in which these tensions could be reported to those with the ability to address them. Could an organization like the SDU, in a nation capacity, with a strong link to the Department of Health, play a part in addressing these? Could the regional networks, with their links to regional health policy be influential in this area too? Perhaps the regional networks, linked in to national policy, could serve as centres of learning, and play a strong part in the communication channels between what happened in individual Trusts, and what happened in National policy. In discussions with Helen and with the SDU about this potential, at various opportunities throughout the time of the Co-operative Inquiry, I gained some positive response to these ideas.

I therefore intended to use the final session to capture the group's learning in a format that could be used to pass on these suggestions to these potential audiences. I drafted a briefing paper to summarise what had been learnt, and asked for feedback from each member within the individual evaluative interviews, as well as for group feedback in the final session. There were two parts to this briefing paper, which I include in Appendix 5. The first was a diagram which aimed to show the importance of organizational learning **process** (e.g. building relationships, debate), in achieving

intended **outcomes** (e.g. criteria checklist, carbon accounting system). I used this as the basis for a participatory exercise illustrated here in Figure 7.4a, in which group members were asked to pick, from the range of process factors shown in the briefing paper, those which they felt resonated most with what they had learnt. I based this around the outcome which was currently most important to them which, at this stage, was carbon accounting. All factors which I had identified to date were provided as sticky labels, and they were asked to stick their chosen factor onto an empty version of the diagram, and explain their choice. This exercise was lively, and they all had little trouble choosing and describing a process factor. I summarised their choices, along with supporting quotes in a revised diagram which I included in the final draft for the SDU, shown in Figure 7.4b. A more detailed analysis of this process informs the discussion of the framework of AR for NHS SD in Chapter 8.

Helen focused on the potential of partnerships to assist progress, giving an example of partnerships existing between the Carbon Trust and the NHS. Trevor gave the example of the need to maintain momentum through feeding back to people on their progress explaining that, through Carbon Accounting, people could see tangible benefits from reducing their carbon emissions, and that this helped them understand why they were making the effort. Andrew discussed the need for communication explaining that, for many people, the language of carbon is meaningless, and that unless there is some way found to make this meaningful to people, they will not engage. Peter discussed the need for developing skills and expertise, sometimes through external experts, because of the scope of the agenda that SD requires the NHS to tackle, is outside its traditional focus on health. Iain did not attend this final meeting, sending a representative with his feedback. This representative was a sceptic with respect to SD, so added some outside perspective to the discussion, explaining how people's trust was vital in gaining their support, as she felt that many people, like her, thought there were hidden interests at play within initiatives for SD, and they resented this.

After this evaluation exercise, I presented the second part of the briefing paper in order to seek group input. This was a depiction of how an organization like this PCT could be linked into regional and national learning, and how the SDU, along with the network which Helen was now organizing could help to develop this.



for Carbon accounting, we had the SALIX regional fund meeting this morning and that was the guy from the C Trust came and talked about the SALIX fund which is basically free money for loan or gift to NHS organizations (Helen)

there's some quite technical stuff there that we need to understand, we need to learn and I mean to be quite honest, all the will in the world, as a healthcare org, sometimes we need to buy in this to get the thing moving...(Peter)

the point in doing it is that people can see what difference they are making, not at an individual level but in the collective groups they work in (trevor)

I'm one of these people who believe these things are done so people can make money off you so…(Iain's rep)

I think there is a big communication issue for staff about 'what the hell is Carbon?'(Andrew)

Figure 7.4a

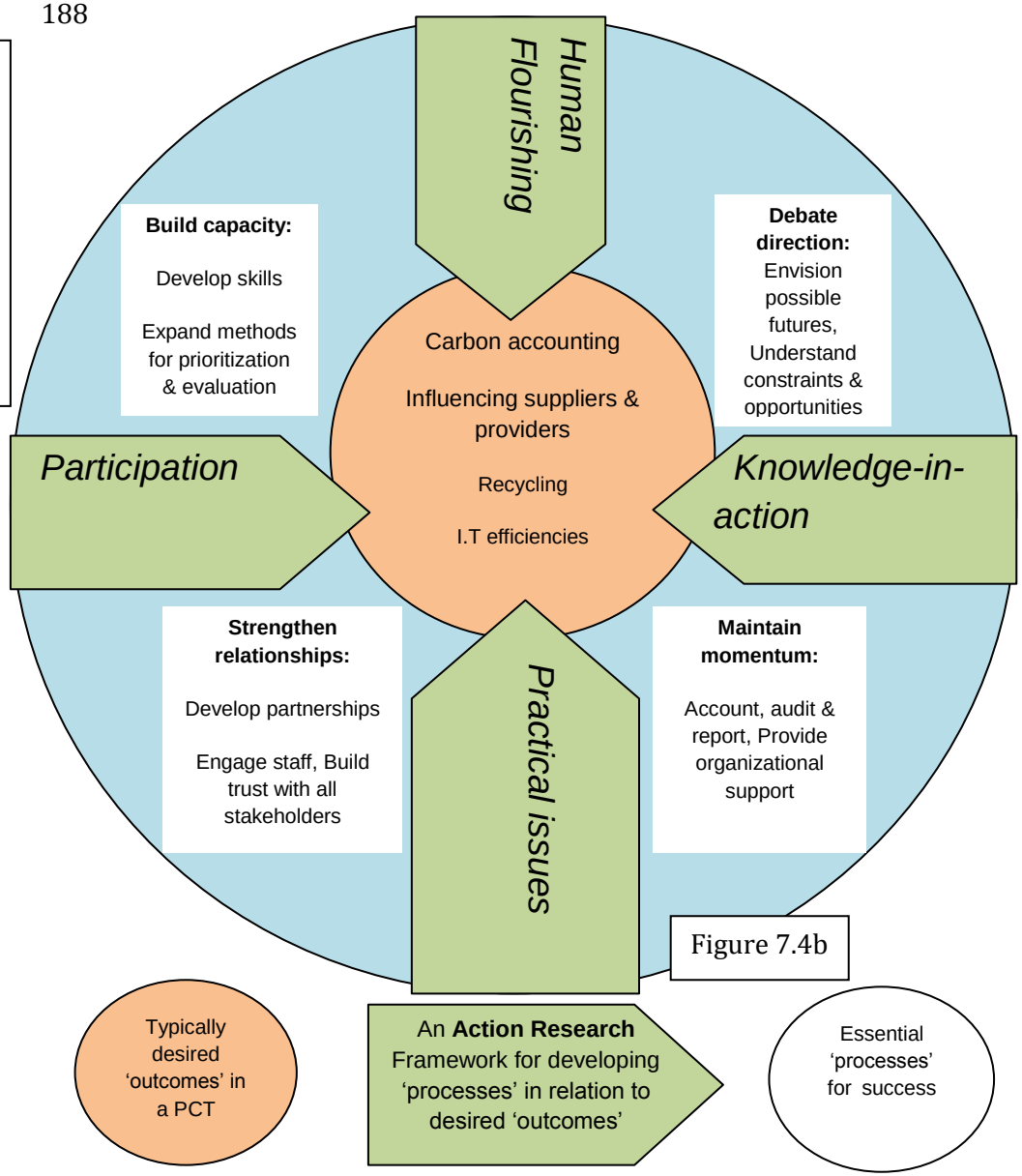


Figure 7.4b

Figure 7.4 A model to link process to outcomes in tackling NHS SD

a) The group activity

b) Summary endorsed by the group

This part is shown in Figure 7.5 which, taken from the briefing paper, shows the potential for AR activities to be supported in the region through topic-based Co-operative Inquiry groups brought together by the Regional Lead. This would be most effective if communication channels existed with the SDU. I based this proposal on the concept from the AR framework that all members of this group were in fact members of other Communities of Practice, around which their specific areas of expertise were developed. The clearest example of this was that Trevor (Finance Lead) is a member of a broader profession of NHS finance staff who already interact to develop best practice. If Trevor was to develop carbon accounting, it could make sense that he did not do this alone, but linked into others in his own profession. They could become part of a specific topic group to explore this, facilitated by Helen as a regional lead.

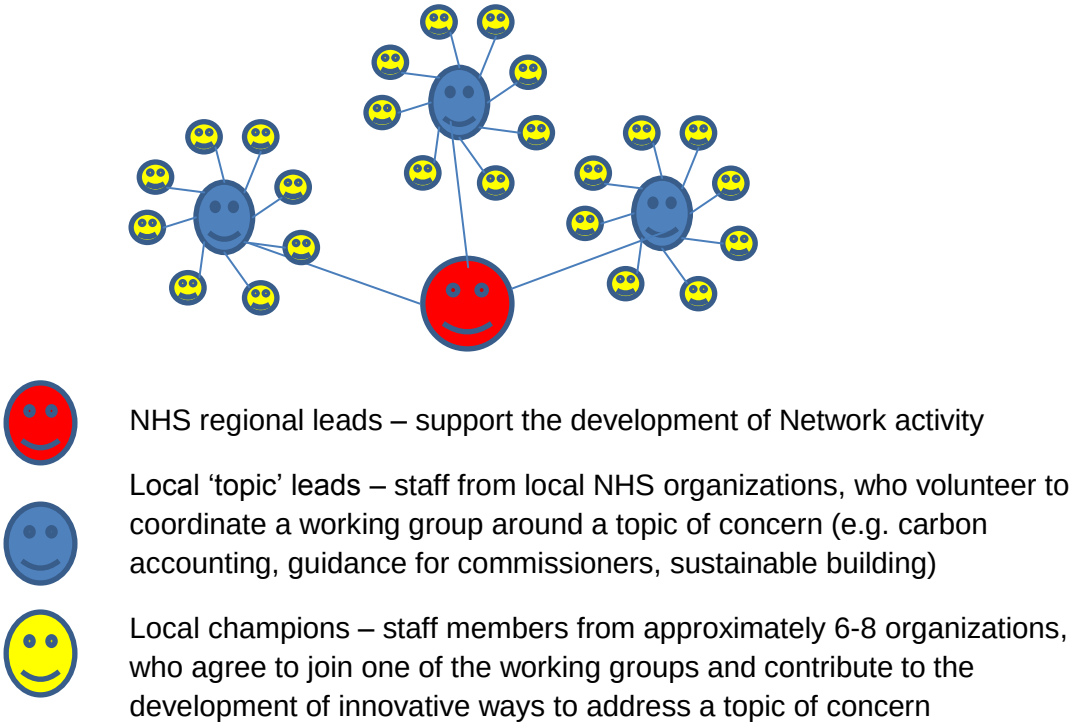


Figure 7.5 Proposal for regional learning groups (from the SDU Briefing Paper)

The group, including Trevor for whom a specific example was given, responded to this second part with less conviction than the first part. There was however an enthusiastic response from Helen, who was used to developing such working relationships and engaging with the SDU. Sensing that she would be the most supportive, and that in her new role she would be the one most able to develop such a vision, I directed the following question at her:

> Claire: do you think there's potential for them (the SDU) to be of help here Helen? I mean we're sending them this information in the hope that it could be helpful…..
>
> Helen: I think sending it and then the follow-up meeting will help because they will….I do think there is a lot they can offer if we get the 2-way communication in place.
>
> Claire: they are well placed and they've got connections
>
> Helen: yeah and they are helping to make things happen nationally which has a huge impact on us locally because it comes back in targets. I mean I wouldn't knock them completely. My gripe with them is that the communication needs to be 2-way. So that what you've just said, they take on board and deliver back.
>
> (Dialogue between Claire and Helen in the final evaluation session)

Andrew showed much disdain for the potential of the SDU to help in any practical way, and others tended to agree:

> Andrew: with the SDU, I just think that a lot of what they can do is just immensely practical, you know 'dear PCT CE, please find enclosed a SD strategy developed by X PCT that we regard as best practice, can I recommend that you develop a SD strategy based on the following template which addresses the following key points. This will put you in good stead when carbon accounting is in place' and it's just like well why can't we do that? Whereas in the nicest possible way do I really need a document on bloody organizational change; I'm up to my ears in organizational change of every form in every possible area, what use is it? I guarantee I'll never read it anyway. What is the value? What is the point of that?
>
> Claire: what they do with that document will determine how useful it is….just sending it out isn't useful.
>
> <lots of laughs>
>
> AK: but that's what happens. That's absolutely what happens.
>
> (Andrew speaking, with prompts from Claire, in the final evaluation session)

However, the Group saw the vision for regional learning groups as somewhat distinct from this proposed relationship with the SDU, and thought that we should be able to proceed with this without formal support from the SDU. Regarding this regional activity, there was general agreement that there was at least some potential. To summarise, the group agreed to endorse the briefing paper for the SDU, but it was really Helen and me to whom the paper belonged. The others did not mind having their names put to it, but did not seem engaged in the potential for this approach to reap any benefits. We, on the other hand, remained cautiously optimistic that we had the attention of the SDU and that our proposal for support for regional learning groups, tied closely in with national leaders, could be listened to. I then sent this to the SDU in time to incorporate it into any development of an organizational change strategy, as requested. Helen and I also met with two representatives from the SDU to discuss this further. We heard nothing back. Instead

of any direct help received from the SDU, Helen and I continue to explore how the regional network for the East Midlands can be developed along the principles of AR. I discuss this potential further in Chapter 8. In this final evaluative process the recurrent themes of 'Group Concerns' and 'Group Dynamics' were still evident. There is some evidence that 'My Concerns' change slightly by this stage in the research, as I accept the constraints on what the group can achieve in isolation and, with Helen, seek other ways of exploring avenues for change outside of the group. I summarise these patterns in Table 7.5.

7.3.3.1 Final group concerns (see Table 7.5)

I think 'Group concerns e.g.1 and e.g.2' (Table 7.5) show that the group concerns remain unchanged through the whole process, as the desire to achieve tangible, measurable outcomes, and that this ensures a continued focus on narrow interpretations of ERM.

7.3.3.2 Final group dynamics (see Table 7.5)

'Group Dynamics e.g.1' (Table 7.5) is a dialogue between Helen and Andrew about the role of the Health and Environment Partnership. This was the main partnership which Helen had developed over a long period of time prior to this group work, from which stemmed the community environment and health projects she has worked on until now. The view Andrew has of this partnership is negative, and this seems to comprise a frustration that the benefits which come from it are not clear. I think this dialogue firmly supports the evidence that now Helen has left, the priorities of the PCT, with respect to SD, are now focused on internal ERM. SD as PH may have been the sole focus (even if a marginal one) of the organization's SD agenda at one time, but the raised profile of SD had led the organization away from this. Perhaps this was not bad news for SD as PH in the long-term. It would not have been possible for Helen to maintain sole responsibility for this, as well as responding to the internal SD agenda, without the risk of burn-out. Questions had needed to be raised about the organizational perspective on SD. That Helen had now left for a position of external influence was, whilst leaving an immediate gap in responsibility for SD within the PCT, potentially more effective in the long-term, but only time will tell.

7.3.3.3 My final concerns (see Table 7.5)

It would seem that by this point within the Co-operative Inquiry, I understood the gap between what the group was in a position to achieve and the generalized vision of NHS SD which I held, as articulated by the 'conversational map'. I therefore stopped trying to push the group towards this. The group had good reasons for focusing narrowly. There would need to be additional external leverage to give them the permission, as well as the support, to do otherwise. For me, and for Helen, there were other potential avenues through which

to explore SD as PH. These existed outside the group in the format of the regional networks and the links to the SDU. The success of these would also depend on supportive contextual factors. We did not know how receptive the SDU would be and we did not know what local engagement from others with interests in SD as PH, could be fostered through the regional network. However, from our perspective, these ideas were worth pursuing. The development of these external relationships as levers within the learning system is a point I return to in Chapter 8.

7.4 Interpreting what happened in the group

In this section, I try to understand what happened in this Co-operative Inquiry using the AR framework for NHS SD which I began with. I identify the following four points of interest which are i) the existence of defensive routines, ii) defensive routines not challenged, iii) group not fully engaged in Co-operative Inquiry process, and iv) the importance of broader social learning networks.

7.4.1 The existence of 'defensive routines' served to maintain a narrow interpretation of NHS SD

In Chapter 2 I introduce Argyris and Schön's 'theory-of-action' model as an important contribution to understanding how learning takes place within organizations. Their model proposes that people in organizations behave as a result of the theories they hold about what is important, what works, and how things get done. They can learn to revise these theories at different levels. Single-loop learning is the term they use to describe the revision of theories about how to do things, and this concerns becoming more effective at what gets done. Double-loop learning is the term used to describe the revision of what and why things get done at all and this, they argue, is much more difficult to achieve. Their work with large numbers of organizations, including both public and private, has revealed the prevalence of what they call Model I behaviours which serve to limit the depth of learning that can take place. Model I behaviours, also called 'defensive routines', comprise the principles of control, winning, minimising upset, and maintenance of rationality. I am confident that Andrew's responses to Helen's suggestions for change are evidence of this type of behaviour in action. Andrew clearly did wish to promote a winning attitude for the SD agenda where it was clear what was achieved, and it was clear what the organization had done to achieve this. The focus on internal ERM illustrates the need for maintaining control; this was an area the organization felt they could do something about, and the maintenance of rationality was extremely evident in the way the agenda was framed, and the indicators of success such as carbon emissions and financial savings which were discussed. It is possible that the minimising of upset, in broad terms, was also evident. In

general though, I think what he advocated was about achieving non-controversial outcomes, so causing minimum upset to the organization as a whole, and not questioning too much about its purpose or intentions. Upset was kept to a minimum in the group through the repeated use of humour within Andrew's responses, so diverting attention from the deeper implications of what he was saying with respect to how this prevented Helen's ideas from being properly considered.

This resulted in the failure to consider any interpretation of NHS SD which broke from what would be considered as acceptable within the organization. Through the process, ideas of SD as PH, usually being tabled by Helen, were described as 'ethereal', 'woolly' and 'you don't go anywhere near that stuff'. But there were forward-looking intentions behind this approach. Andrew did not want to lose the organization's support for SD, particularly for the parts such as climate change which he wholeheartedly bought into. Other issues would distract from those for which hard evidence existed. The rest of the group mainly followed this approach. They were engaged in single-loop learning about how to make their organization more noticeably resource efficient. There was a sense of optimism and common sense whenever Andrew discussed the need to attend to 'no brainers' and provided powerful examples of why these should be achievable.

I illustrate this process with annotation to the diagram of single-loop and double-loop learning provided in Chapter 2 (Figure 2.5), shown on Figure 7.6. This illustrates how the dominant values are efficient delivery of healthcare, and that inefficient use of environmental resources represent a mismatch with these values. In response, single-loop learning involves improvements to ERM. Double-loop learning would require revision of the dominant values themselves as a response to challenges from emerging ideas of SD as PH.

7.4.2 Defensive routines not challenged

My journal entries, along with the activities I designed within the sessions, point to my increasing awareness of the existence of these defensive routines. What I tried to do until fairly late in the process, was to address these through repeated attempts to provide an alternative vision informed by espoused theories of SD as PH. I did this in the diagnostic exercise, with my suggestion of stakeholder accountancy approaches to SD.

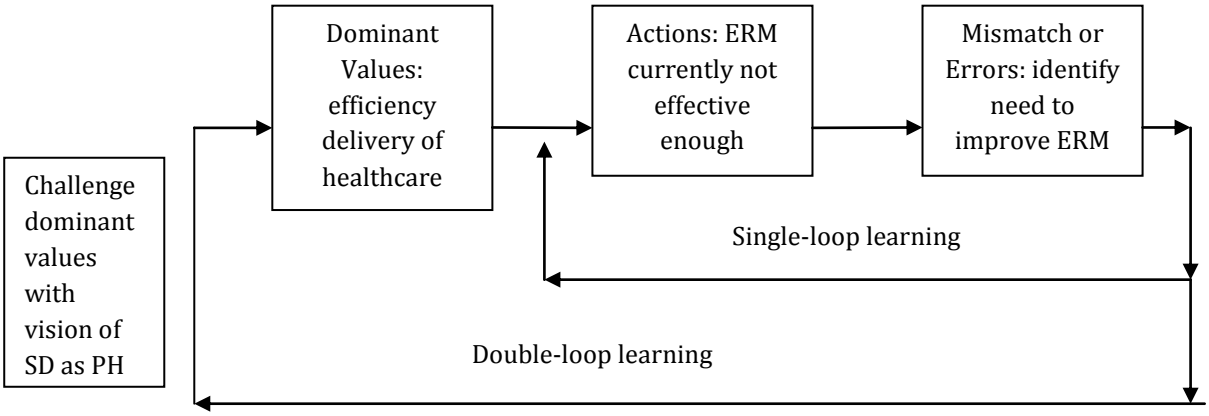


Figure 7.6 Single and double-loop learning in the Co-operative Inquiry group

I did this again explicitly when I provided emerging theories of sustainable communities in the second diagnosis and, more generally, I encouraged discussion of these issues throughout. This approach never worked. In fact, in retrospect, it served to steer people even further away from the complex agenda I was suggesting. Whilst Helen clearly resonated with the suggestions I made, her support was often matched by the voice of realism I have described as being dominant throughout. I did not feel I had permission to tackle these group dynamics head-on. At first, I wondered if this was through lack of experience: I was relatively new to working as a facilitator in these situations. However, a closer reflection on the criteria of Co-operative Inquiry, as outlined in Chapter 4, reveals that such ambitions are always likely to take longer than the time we had together. Only if the group had fully committed to these ambitions, would I have felt safe to challenge the recurring 'defensive routines'. In the relatively short space of time I had with the group, we had not managed to build up these group processes to a sufficient degree to enable this. It did not seem my place to undertake such challenges unilaterally. I was also aware of the responsibility I felt not to cause problems for these people that I would have to leave them with. Whilst these 'defensive routines' were significant in the group's decision to pursue a narrow agenda of ERM at this stage, challenging them within the space of the remaining group meetings would not have been likely to change this, and could have led to a diversion away from the positive actions they had agreed upon within this more confined scope. In the next section I explore the related point of interest concerning the lack of significant interest from the group in these Co-operative Inquiry processes, amidst their desire to achieve outcomes.

7.4.3 Group not fully engaged in the process of Co-operative Inquiry

In the previous section I explain the decision made not to challenge 'defensive routines', and push the participative requirements of Co-operative Inquiry. I explain that timing played a part in this decision; by the time I understood the significance of the 'defensive routines', I did not think there was time for the group to start critiquing themselves to that depth. In this section I reflect on the ongoing concern that the group were not committed to the learning processes of Co-operative Inquiry from the beginning, and my role in that lack of commitment. The importance of the early communicative stages within Co-operative Inquiry is a significant topic in all accounts of the methodology of this approach (e.g. Heron and Reason 1997, Reason 1988). Indeed Reason (1988) describes the crucial role that 'contracting' plays in developing group commitment (p. 23) and that it usually takes at least one or two exploratory meetings in which people clearly describe their expectations and needs, learn about the method itself, and decide whether or not to take part. The proposal session was the closest we got to this ambition. I had used Torbert's four parts of speech (framing, illustrating, advocating, inquiring) to plan how I made the proposal for Co-operative Inquiry to the group. I framed my understanding of NHS SD including why I thought some aspects they were engaged in would be more difficult than others, I illustrated this with reference to an example of sustainable procurement, I advocated an AR approach to tackling more difficult aspects, and I inquired as to whether or not they would like to take part. Throughout this, whilst I was clear about my theories of NHS SD, I did not make it very clear that the proposal was also for the group to engage in AR about their own learning process of how they tackled NHS SD. This is evident in the diagram I presented to them of the AR cycle (Chapter 5 Figure 5.5) in which only one cycle was shown. Co-operative Inquiry would require them to engage in an additional cycle about their own learning. I did talk about this, but I was not as explicit as I could have been. This was because I knew what they wanted: they wanted help with their short-term strategy. Too much talk about reflective learning at this early stage, when they were under pressure to produce outcomes, may even have scared them off, although I still believe I should have pushed a little harder. They accepted this was an interest of mine, and that it influenced the activities we took part in within the sessions, but they did not really accept it as an interest of theirs.

7.4.4 The importance of broader social learning networks

Instead of persisting with attempts to broaden the group's focus from ERM towards SD as PH, or attempting to challenge the 'defensive routines' which helped to maintain this, I saw opportunities for supporting this in the long-term, outside the immediate group. Helen

and I developed a relationship in which we committed to our own shared learning about how to be most effective within the broader social learning networks of which we were both a part; Helen through her links within the health service, the Department of Health and the SDU, and me in an academic setting. Once our attention focused on these broader networks, we held informal conversations, in-between group sessions, in which we discussed the potential for groups such as this one to link with these networks; conversations which were sometimes challenging of each-other's role within this. This learning relationship continues to date, as we reflect on our joint efforts to develop the regional network, and engage the SDU. In AR this less formal, less systematic approach to ongoing critical reflection-on-action has received some attention, is described in the title of a journal article by Marshall (1999) as 'living life as inquiry'. It would seem that there is a place, as well as a need, for both formal and less formal approaches to AR if it is to really be integrated into the politics of daily life.

7.4.5 Concluding comments

In summary then, different things were achieved by different group members. I think Andrew (Chief Executive), Peter (Governance Lead), Iain (Communications Lead) and Trevor (Finance Lead), learnt what needed to be done to maintain organizational support for SD in the form of ERM. This led to the establishment of a carbon accounting programme where Trevor worked in partnership with consultants. It also led to the establishment of an SD group to ensure SD, in the form of ERM, was integrated into organizational governance structures. It led to the establishment of a staff award for Sustainability, to help communicate this newly secured corporate support for ERM. SD as PH dropped right off the organizational SD strategy during our work, and whilst I do not hold the work of the group responsible for this, as it was the result of a combination of efficiency drives, combined with Helen leaving for a secondment, the group's activity could not do anything to stop this happening. I know I tried to prevent this from happening, at least for 4 out of 5 of the group sessions, by asking the group to consider the place of espoused theories of SD as PH within their work. By the last session, I had changed my approach. I had learnt that this was not possible, nor was it necessarily desirable for this group, who needed to work effectively within the constraints they had upon them. In Chapter 8, I discuss what the findings, from this Phase and Phase 1, contribute to the research aims set in this thesis.

8 Discussion

8.1 Introduction

This Chapter is a theoretical discussion with respect to research aims established for both levels of inquiry. I discuss the context-level inquiry first, followed by the meta-level inquiry. Finally, I provide a summary of all the contributions made, in Table 8.1.

8.2 Context-level inquiry: NHS Sustainable Development

As a reminder, the research aims outlined in Chapter 3 were to:

Develop a theoretical understanding of NHS SD through a framework which can guide:

- definition of different interpretations of NHS SD
- an understanding of the challenges and opportunities experienced in their enactment
- an Action Research approach to strategy for progressing SD in the NHS

Contributions made to these research aims are divided into two categories: first a 'conversational map' for the definition and interpretation of NHS SD initiatives, and second, an enhanced understanding of organizational learning processes for SD in the NHS, but also applicable to other organizations. These are now discussed, along with recommendations for further research.

8.2.1 A 'conversational map' for definition and interpretation

The 'conversational map' as developed from Sterling's generic model of paradigm change for SD, was applied to the NHS context in Chapter 4 (Figure 4.6). In this section I provide a reminder of what it is and what it is for, and describe how it adds to an understanding of NHS SD, specifically offering a framework for defining and interpreting different SD projects in a format which can be used to develop them. The term 'conversational map' relates to its subsequent use within AR strategy for change as discussed below (8.3). The 'conversational map' used Sterling's model of paradigm change for SD as a generic guide to the kinds of tensions likely to exist in SD initiatives. Sterling's model proposes that tensions exist at the level of purpose, strategy and practice, and seeks to aid an understanding of how proposals for SD within any context are likely to contrast with dominant purpose, strategy and practice, as informed by trends observed across society.

In order to apply the model to the manifestation of such tensions likely to occur in the NHS, I reviewed historical accounts of NHS policy and practice since the organization was

established to enable me to loosely define a dominant organizational paradigm in these terms. I then reviewed policy and guidance for NHS SD to loosely define what was being proposed as SD in this context. Whilst recognised as an enormous simplification, the dominant paradigm was shown on the map to comprise a purpose informed by a medical model of health, strategy informed by linear management styles, and transmissive styles of practice. I explained the choices for these characterisations in greater depth. With respect to the proposed paradigm for SD, I distinguished between two approaches. Summarised in Figure 3.1, these are 'Sustainable Development as Environmental Resource Management' which I abbreviated to 'ERM', and 'Sustainable Development as Public Health' which I abbreviated to 'SD as PH'. The contrasts between the characteristics of a dominant paradigm, and the characteristics of two proposed approaches to SD, enabled me to define the projects I investigated according to the extent to which they challenged the dominant paradigm, justifying the categorizations I made using evidence of the projects' purpose, strategy and practices which I obtained through interviews with Project Leads.

Providing the means to achieve these definitions is a useful contribution in itself, and responds to the first of the three context-level aims listed above. Prior to this, there had been little critical evaluation of the different interpretations of NHS SD which are being enacted. Certainly such critique was not apparent in general currency; the best practice case studies of NHS SD catalogued by the SDC (SDC 2010) from which this sample mainly derived were all described as SD, even though they clearly focused on very different elements of SD. The Good Corporate Citizenship Toolkit (SDC 2006) outlines a range of different elements of SD but does not advocate which ones are most important. In the theoretical development of NHS SD which I reviewed in Chapter 3, Dooris (2007) goes someway to suggest the need to define interpretations of SD, and the danger of important elements being left out if this is not done. He cites his analysis that current interpretations generally do not encompass notions of SD which are not of obvious benefit to local economic or social conditions, such as fair trade or global environmental concerns. However, a comprehensive framework with which to interpret initiatives, beyond the suggested components of corporate citizenship has not been developed. The 'conversational map' serves this need by providing, not only an indication of all possible components of corporate citizenship, but also what such proposals mean in terms of organizational purpose, strategy and practice as well as how these contrast or are supported by what is likely to dominate.

This leads to its potential not only to define initiatives, but as an interpretative guide to the challenges and opportunities faced through enactment of these initiatives. The map indicates that proposals for SD as PH contrast significantly with the dominant paradigm and therefore projects which aim to meet these proposals are likely to face considerable challenges. SD as PH was presented in the map, as contrasting significantly with the dominant paradigm, being based on socio-ecological models of health where a medical model of health dominates. To articulate such contrasts, the work of Hunter (e.g. 2001, 2003) with respect to Public Health policy in general, was used to begin to develop a vision of an NHS which did work towards socio-ecological models, and the reasons why this would be different to what dominates. His reviews of the fragility of Public Health policy within the NHS lead him to advocate that an alternative role based more on working with complexity, needs to be guided by the World Health Organization (WHO) approach for cross sector working and the sharing of joint agendas. As this theory had not been applied directly to NHS SD, in building a vision of SD as PH, I had to make inferential linkages about the kind of management approaches suitable to do this. I used theories of complex-systems approaches to management and policy (e.g. Chapman 2003, Checkland 1984) to do this. Proposals for ERM could be interpreted either as part of SD as PH (as an important part of corporate citizenship and the influence of NHS activities on broader context) or they could be interpreted solely in terms of their internal organizational benefits, such as cost savings and compliance with legislation. If the broad interpretation to ERM is taken, challenges will be greater than for the narrow interpretation which does not pose the same challenges.

In Chapter 3 I outlined how the descriptive accounts of NHS SD of Jochelson (2004) and Griffiths (2006) provided details of three broad recurring challenges to progressing NHS SD which I summarised as a lack of organizational support, a lack of ability to prioritise and measure, and a lack of appropriate working arrangements. The 'conversational map' helps understand the origin of these challenges as broadly related to the paradigm tensions listed above. However, it also allows for more subtle understanding than that, and enables us to identify why not every project aiming for the potentially more challenging aspects of SD as PH experiences the challenges in the same way. Because it is grounded on an understanding of tensions as social paradigms, and views differences in paradigm perspectives as differences in interests, it is possible to locate the leverage points for certain interpretations. So, the results from Phase 1 indicated that some projects had progressed SD as PH, at least to some extent, because they were supported by partner organizations which did have vested interest in such a role for the NHS. In line

with what Dooris (2007) described in these cases, a role for the NHS as an inward investor contributing to social and economic development was well-established through commitment from regional development organizations who had good relationships with those responsible for regional health strategy.

In a similar vein, the challenges posed by projects which aim for SD as PH, with regards to strategy are also informed by the framework. Complex approaches to strategy and management are shown by the map to contrast with dominant, more linear forms, providing an explanation as to why NHS staff report difficulties in accounting for the benefits of SD as PH, and why this holds them back. Understanding this challenge advanced through this thesis. In previous summaries, such as that by Jochelson et al (2004), this problem was portrayed as the need to measure health outputs from initiatives of SD as PH, in a linear fashion akin to randomized controlled trials, which the organization is used to; intervention A will result in output B. However, debate about whether this is really appropriate was evident. Where external interests guide NHS SD, they do not tend to expect this. They already subscribe to different epistemological and ontological understandings of cause and effect held within socio-ecological models of health, and therefore just require that the NHS contributes to certain processes believed to enhance the conditions for health (e.g. a healthy economy and environment and a cohesive community). These can be measured by what the NHS does (e.g. number of local suppliers it uses, percentage of local population it employs). They do not expect the NHS to predetermine the outcomes for health. In some cases however, SD leads argue that they do require this, and that current inability to do so holds them back.

Within the results of Phase 1, I identified a specific 'enabling role' as central to the objectives of a number of projects. I observed that this was just as important in some cases as the specification of outcomes for SD, and involved such efforts as increasing awareness of NHS staff about potential benefits to the community of it acting as a corporate citizen, helping the NHS understand how it could act in this way, and establishing practical infrastructure to support ongoing links vital to developing this agenda. The 'conversational map' helps us understand this 'enabling role' more fully as the attempt by external parties with vested interests in the NHS developing its influence on SD as PH, recognising and addressing the bridge between a dominant organizational paradigm and what is required for SD. It can be likened to the concept of 'relational practice' which I introduced in Chapter 2 to describe SD practitioners as being involved in the communication, dialogue and advocacy which aims to expose, and allows for the transformation of dominant paradigms, to allow systemic ideas and working practices to

flourish more freely. Recognising the complexity of this task, and that the NHS currently has few resources with which to engage in it, Project partners located outside the NHS had put explicit resources into supporting such practice, in order to help them achieve their own interests.

This research has shown that this application of Sterling's model of paradigm change for SD, populated with the review of the NHS context as described, is a useful frame for defining and understanding challenges and opportunities experienced in NHS SD projects. It is recognised that the detail of the paradigm contrasts, which was only sketched for the purpose of this thesis, is a topic which is ripe for further research. The details at the level of each of the domains could usefully be investigated: defining further the role, strategy and practices of the NHS in SD. This would build on emerging concepts of corporate citizenship in the NHS as introduced by Dooris (2004; 2006; 2007), and advance the proposal that models of strategy and practice for whole-systems health, such as 'healthy settings' offer guidance to planning NHS interventions in a community for SD. Currently, accounts of such strategy and practice such as Barton and Grant (2010), offer much guidance on the principles of what comprises interventions for health, but less on what specifically these principles mean in the context of the NHS. Clearly there is much scope for investigating their application in the NHS in more detail.

As well as defining further what a paradigm of SD as PH comprises in the NHS, there is also scope in understanding more clearly how this contrasts with what dominates, and the vested interests involved in this tension. This research has revealed that some interests located outside the NHS may be in a powerful enough position to effect change for NHS SD, and specifically these have been identified in some projects as those agencies responsible for regional economic development. In other cases, different interests have been advanced which contrast to varying extents with the dominant organizational paradigm. A more in-depth exploration of the interests shaping interpretations of NHS SD would seem appropriate. For this purpose there is much more scope for developing links between theoretical knowledge of health systems and the NHS, and those concerned with NHS SD, as this thesis has begun to do.

There are clearly many options available for how these research agendas could be pursued; the approach chosen will depend on the specific objectives identified as well as the perspective of the researcher. In the remainder of this Chapter, I provide a discussion of the proposal made throughout this thesis, for the convergence of strategies which seek to progress organizational SD, and research which seeks to understand the process

further. First, I outline how the framework of AR for org SD in the NHS developed through this thesis, contributes in broad terms to an understanding of the relevance of learning process in organizational SD strategy. Then, I turn to the contributions made at the meta-level regarding the process of AR for SD in such a context. Within this discussion, I describe how this thesis contributes to the convergence of theory of research process, with theory of organizational learning process for SD.

8.2.2 An enhanced understanding of organizational learning process for Sustainable Development

In Chapter 4, I provide an account of how the concept of organizational learning has recently been applied to concepts of organizational strategy for SD with the grounding principle within this being the need to revise dominant organizational assumptions from non-systemic, towards more systemic versions. This clearly has much relevance to this thesis, which as I described at the outset, is also grounded in the philosophical perspective that SD requires such revision of assumptions held within a particular context. I summarised the work of Doppelt (2010) and Senge and Carstedt (2001) as being explicit about the need to integrate learning process into strategy for SD in order to revise these assumptions. Doppelt (op cit) describes the organizational structures required to support this learning, and others including Molnar and Mulhivill (2002), and Sibenhuner and Arnold (2007) have sought to provide evidence for the existence of learning conditions, with reference to the earlier work of Senge (1990) in which such factors as team building and shared vision, were articulated. I proposed that this body of theory was not yet well developed with regards to the question of how to build the appropriate learning process, supporting this proposal with theory from the broader field of organizational learning, which has long been concerned with understanding and developing such process.

I introduce the concept of defensive patterns of behaviour after Argyris and Schön (e.g. 1978) to explain why learning process is not easy to achieve, and why proponents of organizational learning for SD need to understand the challenges involved in what they propose, more fully. For Argyris and Schön (*ibid*) the distinction between single, double and even treble-loop learning helps make this point. Within organizations, it is normal to learn how to do things more efficiently (single-loop learning) but almost universal patterns of human behaviour (termed defences) serve to make it difficult to question why things are done as they are (double or treble-loop learning). This concept has been influential in organizational theory and strategies have been developed to overcome defences. The call for such strategies to recognise the social origin of defences has been made, and is conducive to the Participative Research Paradigm (PRP). As Elkjaer (2003)

describes this perspective requires a shift of attention from the focus on individuals' worldviews as a means to revising an organizations' prevailing paradigm, as has been much of the focus previously, towards the recognition that such defences arise socially and in contexts of action, therefore must be revised also in these social, contextualised settings. This provides more potential for engaging with the power interests which influence them.

This proposition as a means to developing strategy for SD in the NHS, was explored in this thesis. It is here that the contribution I make about format of strategy for SD in the NHS, converges with the contribution I make about research strategy. The framework of AR for SD in the NHS was proposed as a guide to addressing practitioners' needs for developing strategy in practice, alongside the needs of academics to contribute to theory about how to develop strategy in practice. The framework proposed that there is mileage in combining what are often two separate endeavours. In the next section, I discuss what was learnt about this proposal through trialling it in practice, and how this research has therefore contributed to understanding such proposals further.

8.3 Meta-level inquiry: conceptualising Action Research for Sustainable Development in organizations such as the NHS

As a reminder the research aims outlined in Chapter 2 involved developing the theory and practice of Action Research for Organizational Sustainable Development as combined researcher-participant strategy specifically by:

- Integrating the concept of theory building for SD
- Integrating theoretical understanding of learning process in organizations
- Defining an 'integrative' role for researcher, and a 'participative' role for practitioners

If the contextual level inquiry has been about developing an approach to analogous theory building as an aid to SD strategy in the NHS, then the meta-level inquiry has been about engaging in analogous theory building about what an AR process can contribute to such an endeavour. The theoretical contributions I outline here can therefore be viewed as an attempt to further articulate a vision, informed by practice, which can be used within reflection-on-action within other inquiries into AR for SD. I propose that these contributions are potentially relevant, not just to the NHS, but to other organizations as-well. This is because they are grounded in broader concepts of organizational change as well as in broader concepts of SD theory. In understanding how these contributions can inform progress towards AR for SD, I am again informed by Sterling's model of paradigm

change for sustainability introduced in Chapter 2. In this thesis, I have used this to help define the nature of paradigm tensions operating at the level of an organization however I introduced it in Chapter 2 as applying much more broadly, including to research paradigms. Participatory approaches such as the PRP are emerging where less participatory ones dominate. I am involved in analogical theory building to contribute to this emergence. Analogical theory building at the meta-level therefore requires an understanding of the tensions involved between research process advocated by AR for SD, and that which is likely to exert a dominant influence on those it is aimed at (researchers and practitioners). I therefore discuss the contributions made in these terms for each domain of a research paradigm. I outline how this thesis contributes to furthering articulation of AR for SD compared to alternatives which dominate. Achieving a comparison between two paradigms is clearly an extensive task and I make no claims to have done this in a comprehensive or universal way; my aim was to highlight tensions which have created challenges and opportunities for this research, and which due to their links to previously made theoretical propositions, could have wider interest.

8.3.1 Epistemology (vision) : the promotion of conversations for Sustainable Development

The framework I proposed in Chapter 4 draws together previous disparate concepts within the emerging field of AR for SD about the need to pay attention to process and to theory. Process issues had been conceptualised as relational activity by Reason et al (2009), and were modelled to involve awareness, agency and association, by Ballard (2005). Theory building within this process had been conceptualised as the promotion of conversations for SD by Bradbury (2001) meaning the contrast of an articulated vision with an understanding of how things are. Bradbury's use of this metaphor enables issues of power to be identified by viewing different paradigms as expressions of different voices where some are more dominant than others. This framework proposes that process understanding can be linked with this understanding of theory building, via the integrated role of the 'conversational map' within AR cycles of action and reflection. The nature of cycles and this integration is detailed further below, and in this section I pay some more attention to articulating the over-arching vision further.

The notion of relational practice then becomes viewed as a political process of developing the voices representing more marginalised interpretations of how an organization should relate to its context. In the context of the SD in the NHS, the most marginalised voices are those advocates of SD as PH. The relational practice of AR is about helping people to understand the extent to which different voices are currently heard, and to decide how

they want to address this; notably the extent to which they wish to allow more marginalised voices into the conversation. In the case of the members of an NHS organization involved in this research, the decision they made in this regard was notable. The group decided that the pressures to respond to the dominant voices were so great that they could not give voice to SD as PH, at least at the moment. I, as an Action Researcher, was led to therefore look outside the group at associations which could be made to begin to address this impasse. This is clearly an ambitious task, and leads to the strategic approaches to build relations and association which I outline for the framework below. The vision outlined here can be further conceptualised through the substantive social theory of Habermas. I propose that the role of AR in promoting conversations for SD can be viewed as the creation of communicative space for SD, but that this raises as many questions concerning how far such proposals can go, as it does answers.

8.3.1.1 Theory of Communicative Action and Theory of System and Lifeworld

Kemmis (2001) summarises how Habermas' Theory of Communicative Action, and that of System and Lifeworld, help to explain the ambitions in AR for developing agency as a very human endeavour concerned with emancipation from the influence of dominant structures (Systems) built on different values from our own (Lifeworld). In an ideal scenario, communicative action akin to critical approaches in AR, focuses on the critique of the frames imposed by these dominant structures. Gayá Wicks and Reason (2009) also link these theories to the role of AR and draw on Kemmis' summary to state that this ideal communication:

> makes possible the formation, affirmation, and regeneration of a community's value commitments and integrative influence which are then manifested through systems of material reproduction (p. 246).

In other words, if communication is of a high enough quality, shared values of communication can be integrated into actions and therefore structures which comprise the community. If not, people experience alienation and a lack of meaning as their lifeworld becomes ever-more at odds with the organizational and institutional arrangements they experience. Habermas was concerned that a widening of the gap between System and Lifeworld is characteristic of modern society, and that attention should be paid to reinvigoration of communicative spaces to address this. From this perspective, the critique of organizations evident in literature on corporate citizenship can be viewed as demands to renew organizations' values, structures and practices to be more aligned with people's values. Specifically for the NHS, such demands are evident in the proposals for SD as PH. The role of communicative spaces would be to provide situations

where the gap between Lifeworld and System can be explored and addressed. In their ideal form, they allow for the voices of alternative values to those which dominate, such as those of ecological and social integrity, evident in systemic visions of SD, to be heard. If communicative space is about giving voice to the minority as well as the majority, minority voices would be given permission to exist, enabling them to grow in articulation, and possibly in strength. In short, communicative action is about the ambition to continually challenge and critique dominant frames; this process is a goal in itself. This is very different to many of the experiences of those trying to promote SD where communicative space for their voices to be heard and developed is not common.

Whilst this proposal does help to articulate a role for AR in SD as supporting the alignment of organizations with human values by giving voice to those values which are generally silenced and un-surfaced, it presumes such values do exist in the first place, and that they will be conducive to SD. AR in the PRP would seem to advocate such a leap of faith, and I instinctively warm towards this, or else I would not have taken this approach in this thesis. However, if this is the perspective guiding the emerging field of AR for SD, then there is much to be explored and understood about the nature of such un-surfaced values, as a crucial part of understanding whether AR process can help to foster them. Here it appears necessary to link further with parts of the SD debate concerned with such issues as values and their relationship to SD. I alluded to these very briefly in the preamble, quoting Phillips (2009) and Maiteney (2009) as examples of those exploring this issue. To summarise this vision then, I propose that the framework helps to articulate the theoretical basis for AR as SD, and that even though there are clearly questions associated with it, there is value in helping to define current thinking so that the debates can be developed.

8.3.2 Ontology (strategy): A multi-level approach to integrating theory building with learning process

The framework I propose outlines the multi-level nature of learning required which was already alluded to within Ballard's three conditions, but which I suggest is emphasised more strongly here. The 'conversational map' plays a role in this emphasis by helping identify the actors, ideas and practices which need to be engaged with and the different levels they operate at (purpose, strategy or practice). It helps extend Ballard's condition of 'association' by adding the concept 'community of practice' (e.g. Wenger et al 2002) to describe the networks he proposed as comprising this association. This research has helped understand the role of communities of practice in an SD initiative. It helps us to perceive practitioners involved as individually, members of wider networks outside of any

formal group leading an initiative for SD. For example, the Finance representative on the Co-operative Inquiry group developed his financial practice through relationships, not with the SD group, but with the broader finance community who collectively agree (at least to some extent) on what constitutes good financial practice. It was identified that it was through engagement with this community that financial practices to support SD, such as a broadening of the term 'Whole Life Costing', could be developed. As described by Wenger (2000) communities of practice are the 'social containers of the competencies that make up such a (remote) system' (Wenger 2000 p. 229), and seen in these terms can become a unit of inquiry through which to explore specific aspects of the SD agenda, such as Financial arrangements.

This recognition of the importance of influences outside any immediate group, as related conversations for SD, leads to innumerable suggestions for more detailed research with relevant communities of practice to enhance particular theories within a more sustainable organizational paradigm. One of the persistent challenges identified for NHS SD, was the problem of prioritisation and measurement (Jochelson et al 2004), crucial for gaining organizational support. As described in the discussion on contextual contributions above, alternative approaches to measurement, which account for broad social, economic and ecological impacts, are required. There are those within NHS SD initiatives, as well as in organizations more generally, such as (e.g. Chapman 2003, Checkland 1984) who are developing theory and practice to address these difficulties. These are all relevant communities of practice, who if recognised and linked with, could provide valuable strength to the conversations. I think this strengthens Ballard's original proposal to consider association. In an AR approach to SD, these communities of practice could be identified in response to the particular needs of any SD initiative; the 'conversational map' helps identify who these might be for any given context by providing its generic patterns of the likely interests involved.

This form of building association across organizational boundaries has begun to be researched and discussed as a distinct and important part of conversations for SD, by Bradbury-Huang et al (2010) and Senge et al (2007), but without its linking, through an over-arching framework, to processes inside the organization. Their work does, however, provide the most detailed accounts which would appear to be available on the nature of the collaboration itself, through case studies of what is being achieved. In both of these cases concern is with the need to create collaborative learning systems so that organizational members can more effectively navigate learning across organizations. Bradbury (*op cit*) uses systems language to describe the objective of this, as being to create

the channels required for feedback so enhancing the chance of responding to demands from the external environment. The vision for these learning systems is that shared concerns can be fostered around the needs of the whole, as opposed to only focusing on the needs of an individual organization. As Senge (*op cit*) admits though, apart from evidence of a few organizations attempting to establish such systems, 'there is no precedent for it...it must be co-created by various stakeholders' (p. 44).

These ideas imply that organizational leaders involved in SD strategy should be supporting these conditions, but there is little guidance on what this support should encompass. The examples which Senge (*op cit*) describes involve both formal and informal elements. The formal elements were events such as workshops, for those organizations seeking to become collaborators in what was a defined project, and the more informal approaches involved the need to support the networks which promote ongoing dialogue in daily working life. Formal methods appear useful in drawing attention to the need to systematically reflect, at least until we have all learnt to do this better as a matter of course, but the message seems to be that this should not exist at the exclusion of a fostering of more informal approaches. There is clearly much scope for further researching these collaborative learning systems in their own right, but also as part of a multi-level approach outlined in this framework.

This research revealed that adherence to rigid criteria about what constitutes Co-operative Inquiry is not always practical when working with managers in such a context. I have discussed my concerns that throughout the cycles, group members were not engaged deeply with the theoretical principles of Co-operative Inquiry which I had presented to them. However, the research also reveals that an emphasis on such an adherence is not necessarily desirable and may have even stood in the way of pursuing their real concerns within their real-life context. The group did progress their SD strategy and we did reach consensus on continuing with this inquiry beyond the formal project we conducted. Realising that this is more important than my ability to judge the research against imposed criteria for Co-operative Inquiry was a key stage in my development as a participative Action Researcher.

I continue to explore these ideas in practice with the SD Champion from the NHS Co-operative Inquiry group; Helen and I are making attempts to foster a learning network within the East Midlands and we are exploring the balance between formal workshop events, and informal network development. As this process develops, I look forward to

contributing more to this theory, but also to learning from other accounts which may inform our own efforts.

The addition of 'influential actors' as an important element of the notion of association, was something I proposed at the outset because of my understanding of AR as engaging in the power influences across the system of influence. If, as I outlined in Chapter 2, AR comprises 1st, 2nd and 3rd person research, this is the realm of the 3rd person;

> among the many skills, methods and theories relevant to third-person research/practice, perhaps the most important are those that concern the question of how to engage, motivate and gradually transform concentrations of unilateral power (Torbert 2001 p. 256)

This does not appear to be explicitly addressed in the proposals for communities of practice or collaborative learning systems outlined above which focus more on concepts of shared learning. However, it was evident within this research that this was an essential element of AR for SD, even if we only began to scratch the surface of how to address it. In the group process, I along with Helen, had realised that many barriers to progress were imposed from outside, and therefore began to think about how to engage with these influences. The briefing paper we produced for the NHS Sustainable Development Unit was a key example of our attempt to do this, but to date we received no positive response. There are other influential actors within the system who could be brought into this conversation, and a generalised understanding of the role of the Action Researcher in engaging such actors needs much more discussion. Our attempt involved making links with national policy makers. Other attempts were made in the examples studied in Phase 1, involving seeking opportunities from influential parties from the more local community or regional context. These ideas may be able to be developed from linking to concepts outside of the AR community. Concepts of multi-level governance in relation to SD may be relevant.

In short, the multi-level nature necessary in AR for SD is a central message of this framework. Whilst it may be appropriate to focus attention only on a Co-operative Inquiry comprising members from inside an organization, it is not appropriate to developing SD strategy as a whole, which as the 'conversational map' helps to articulate, comprises multi-level influences which must be engaged with if transformational change is to be achieved. This is however, an ambitious form of strategy, and is not well understood at present.

8.3.3 Methodology (practice): integration and participation

Based on the vision and strategy proposed above, an integrated role for the Action Researcher can begin to be articulated. In broad terms, linking back to the vision,

informed by Habermas of AR for SD as developing communicative space for conversations for SD, provides further guidance as to what this integrated role entails. As I have described, with reference to Kemmis, the role of the Action Researcher can be viewed as the opening up of communicative space. This is a proposal echoed by Gayá Wicks and Reason (2009):

> Habermas' theorization offers important insights....it helps us to consider the opening up of communicative space as a principle task of Action Researchers, and reminds us that central to this task is a critical awareness of and attention to the obstacles that get in the way of dialogue (p. 246).

As the emphasis of this theory is on the ongoing need for critical discourse within any community, the need for the Action Researcher to engage in establishment of an eclectic range of critical learning experiences, as the framework seeks to indicate, is supported. Huzzard et al (2010) also support this idea. They describe the need to do this as the need to engage not in one-off projects, but in a 'research field' akin to what I have already described as a social learning system. They see the role of the Action Researcher within this field as a boundary-subject role: working at the boundaries which demarcate 'different worldviews, identities, and domains of practice' (p. 295). The term boundary 'subject' is used to make clear that the Action Researcher does not play a neutral role within this but inevitably contributes to the construction of discourse. The effectiveness will depend not only on the Action Researcher, but on the representative structures which exist in the research field to enable different voices to actively participate. In the East Midlands Regional Network, we have made the first tentative steps towards exploring what these representative structures could be; there is a long way to go.

More specifically, as the framework helps outline, Action Researchers are involved in the promotion of conversations for SD, and this can be aided by the 'conversational map' offered. They have an integrative role in establishing and motivating a group and helping it engage in quality analogous theory building, using critical influences on learning process to reflect, and more appreciative influences, to envision alternatives. The map provides a guide to the content of these conversations. Crucial to the process is the linking of the group to wider networks in a supportive learning system. Possibly the hardest and least understood part is the linking of the group to actors of influence. In the context of Co-operative Inquiry I established for this thesis, I can continue to explore this role because of a well developed relationship with the lead for SD from that organization who has also moved to a more powerful role within the Region. Without such a link, an outside researcher would likely not be able to develop association. This implies the importance of relationships between Action Researchers and those practitioners involved in SD strategy

for their organizations, and the need for practitioners to commit to developing the learning system as a whole, and the links within it. There is much scope in further understanding how practitioners can be brought into the integrative role outlined above, as it is clearly extensive and impossible for an outside Action Researcher to tackle alone.

8.4 Transferability to other organizational contexts

This research has proposed and developed a framework for a multi-level Action Research process to progress SD in the NHS. Chapter 4 documents the groundings of this framework within broader organizational change theory and broader organizational SD theory. With respect to organizational change theory, this framework is informed by proposals for the role of experiential learning, such as that supported through AR, in contributing to change in organizations. In these proposals, organizational behaviour is viewed as a complex outcome of everyday social interaction and political processes, not something which can be understood and guided out of context. With respect to theories of organizational SD, it is informed by attempts to understand what it is that practitioners working on SD are trying to change about their organizations: what organizational paradigm are they trying to promote and how does this contrast with that which dominates?

The framework presented in this thesis draws together these two elements of existing theory by introducing the notion of a conversational map with which to understand contrasting paradigms in a context, and defining the role of AR as facilitating action and reflection around such a map. The insights which were gained into the multi-level and political nature of such a role should be applicable beyond the context of the NHS: the conversational map is developed from broader social change theory and its generic descriptors of contrasting paradigms could be used to explore different organizational contexts. In summary then, the insights of this thesis are potentially relevant to practitioners in any organization who seek guidance on organizational change strategy for SD, as well as to researchers wishing to contribute to an academic understanding of these endeavours. It presents a collaborative relationship between researchers and academics which is ripe for further exploration in the NHS, but also in other organizational contexts.

8.5 A summary of contributions made and suggested further research

In the final section of this Chapter, I summarise very briefly how the contributions discussed above relate to the original research aims by adapting the summary of aims and objectives presented in Chapter 4, by presenting a summary Table 8.1.

Research Aims	Contributions	Recommendations for future research
Meta-level inquiry		
Developing the theory & practice of Action Research for Organizational Sustainability as combined researcher-participant strategy specifically by: 1. Integrating the concept of theory building for SD 2. Integrating theoretical understanding of learning process in organizations 3. Defining an 'integrative' role for researcher, and a 'participative' role for practitioners	Theoretical framework of AR for SD comprising following elements (Figure 4.5): • 'Conversational map' of tensions likely to exist between dominant organizational paradigm and proposals for SD as an aid to analogous theory building • Multi-level learning strategy involving group learning process and links to broader networks and influence • An articulation of this role as the linking of theory from 'conversational map' with multi-level learning strategy, in partnership with organizational insiders	Develop further the field of AR for SD in organizational context by: • Further incorporating understanding of values and social change for SD • Further understanding of multi-level learning systems including the links between parts, what they can achieve and how they can be fostered, particularly the incorporation of actors of influence • Further modelling the partnership role between the Action Researcher and practitioners of the scale and length required to build multi-level learning systems
Context-level inquiry		
Develop a theoretical understanding of NHS SD through a framework which can guide: 4. definition of different interpretations of NHS SD 5. an understanding of the challenges and opportunities experienced in their enactment 6. an Action Research approach to strategy for progressing SD in the NHS	Contextualised 'conversational map' indicating tensions between dominant organizational paradigm and proposals for NHS SD: (Figure 4.6) • two broad categories of NHS SD project identified • challenges/opportunities understood as tensions between paradigms • Influence of external vested interests in developing SD as PH • Potential for organizational SD strategy to converge with AR strategy	Develop further an understanding of organizational strategy for SD in NHS (and other organizations): • Apply map to other organizations • Understand contrasts between competing paradigms in more detail • Develop understanding of vested interests in the shaping of organizational SD • Develop collaborative practitioner/researcher AR strategy for SD from perspective of organizations

Table 8.1 Summary of contributions of this thesis with respect to both levels of inquiry

9 Conclusions and reflections

9.1 An overview of key ideas presented

I introduced this thesis by explaining that it is a dual-level inquiry and I include the diagram again which I used to illustrate this:

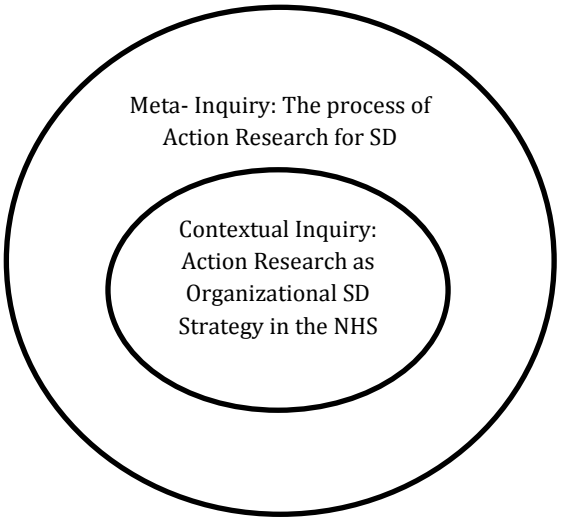


Figure 9.1 A recap of the dual-level inquiry of this thesis

Through this thesis, I have arrived at the understanding that Action Research (AR) for Sustainable Development (SD) is a process of supporting 'conversations for SD' with Sterling's model of paradigm change for SD (Sterling 2001, 2003) used to understand the content of these conversations. What Sterling's model provides in its generic form is guidance on the contrast between the values, strategic models, and practices that people are trying to promote in initiatives often labelled as SD, and those which are likely to dominate in their context. Whilst Sterling had concentrated on the theoretical exercise of identifying these competing paradigms from vast reviews of social trends over time, he had not explained how this understanding could inform practice, and appeared to be inviting others to take up this challenge:

> (this model) allows us to represent the ecological critique of Western culture, of Western ways of seeing/knowing/doing as well as indicating an integrative ecological alternative (Sterling 2003 p. 92).

In this thesis, I did take up this challenge, and I proposed and trialled an AR framework in which Sterling's model could be used to aid action-oriented conversations about what reality had been created (the dominant paradigm), what reality was desired (the

ecological paradigm) and what steps could be taken to address the gaps between these. In the language of AR, this is called analogous theory building: purposive theory building to guide change in a real-life context. This is a proposal to build awareness into the conversations which take place in any context, acknowledging the influence such conversations have on what actually happens. Through purposive, future-oriented conversations, it is possible to try and direct those actions towards a desired vision. I believe this to be a powerful concept to engage with the ambition for SD at both levels addressed in this thesis; the contextual level where people are trying to develop SD in the NHS, and the meta-level, concerning how academics can help people to develop SD in a variety of contexts. In this concluding Chapter, I summarise the conversations for SD which are taking place at each level, and the place of this thesis amidst these.

9.1.1 Conversations for Sustainable Development in the NHS context

I have proposed that the NHS is helpfully viewed as existing within a broader learning system. Within this system, there is an ongoing conversation about values, strategies, and practices and a range of different voices which receive varied amounts of coverage; some voices receive more of a hearing than others. The 'conversational map' I provided suggested that the dominant voices in the NHS learning system are those of the medical profession, and those who advocate machine-like management and governance structures. There are alternative voices with different perspectives on what should be done with the vast amount of NHS resources that exist, but these receive less coverage. This thesis has not reviewed all such critical voices, but the voice which is relevant to this thesis is that of the critical Public Health community who subscribe to a different perspective on what the health system should look like, based not on a medical model of health, but on a socio-ecological model of health. In this model, health is not owned by the NHS, but it is everyone's business, and the NHS should understand its role as one important player in contributions to the wider determinants of health.

I proposed that there were two voices evident within an NHS SD agenda. One voice which I called Environmental Resource Management (ERM). This is about efficient use of natural resources, primarily to support the ongoing focus on health treatment. Another voice which I called SD as PH, connected with those of the critical Public Health community to produce the beginnings of a unified argument; if the NHS was to use its resources to enhance the social, economic and environmental conditions in the communities it served (i.e. SD), then these communities would become healthier communities, going some way to controlling demand for NHS health treatment services. I identified through Phase 1 of this research that this voice had been able to reach sufficient momentum in some areas at

some times, to have resulted in quite significant engagement of the NHS in supporting these. However, those involved still reported the challenges they experienced in keeping this voice alive. It was clearly still a fragile voice, and only some of the aspects of SD were listened to, most notably those championing economic growth, rather than environmental sustainability. It is not clear to what extent the current re-structuring affect the strength of these voices but I do not think initial signs are particularly hopeful. The powerful alliance which formed between the SD community and the PH community appeared to be supported by a relationship at the national level between the Sustainable Development Commission (SDC) and their Healthy Future's Project which resulted in the Good Corporate Citizenship Toolkit, and the Healthcare Commission who championed a role for the NHS in the wider determinants of health. Both the SDC and the Healthcare Commission have recently been abolished.

However, even without these lead organizations, there is still a critical Public Health community, and a Sustainable Development community. Whether they can find ways to engage with the structures of the re-organized health system remains to be seen. The NHS Sustainable Development Unit remains, at least at the moment, but its role to date has been focused on ERM, showing less interest in these broader debates.

In this thesis, through the work with NHS Nottingham City, we engaged in this conversation at the level of an individual NHS Trust. I was given access as an Action Researcher to pose direct questions about what vision of SD this Trust wished to progress and how they wished to enact this, and the group explored these questions through cycles of action and reflection. In this conversation, SD as PH did not receive much of a hearing, and the voice of ERM was strengthened. Helen and I looked outside of the group to continue the conversation with others.

9.1.1.1 A note on a changing NHS context

The NHS context is changing dramatically at present. Following the White Paper *Equity and excellence: Liberating the NHS* (DH 2010), PCTs like NHS Nottingham City are due to be abolished by March 2012, along with Strategic Health Authorities, which at one time were proposed to be monitoring bodies for NHS SD in a region. Amidst this process of policy reform the recurring debates which have been evident throughout the history of the NHS, which I identified in Chapter 3, are prevalent again. As one of the most politically sensitive subjects in the UK, the need for Governments to have some control over what happens within it does not go away, yet they try to balance this need with that of local flexibility. The argument over the extent to which the private sector should have more

involvement in the delivery of its services also continues, and whilst the public do not like to hear of wasteful public bureaucracy, neither do they like to lose control of this public good, to the interests of the private sector. To a lesser extent the debate about the place of Public Health within an NHS focused on providing clinical care, is also evident. Responsibilities for determining the public health needs of a local population, and therefore potentially an agenda of SD as PH, are moving to Local Authorities, and it is not clear whether this will strengthen or weaken this voice.

In such a climate of organizational upheaval and uncertainty, many people will have no time, and possibly no enthusiasm, for reflective practice, and little time for non-urgent matters such as SD. However, arguably the model of developing strategy for SD which I present in this thesis has more potential than alternatives to survive this upheaval. I propose that this is because it aims to develop supportive networks for people to navigate their contexts, and make sense of changes which occur in them. It aims to support people in understanding where decisions for change come from, and the implications of these for their own intentions. In short, it helps people place their attempts to develop strategy for SD within a broader context of influence, so becoming better at identifying constraints and opportunities as they arise. These NHS reforms may bring with them as many opportunities for this agenda as they do challenges and practitioners working on SD are likely to benefit from being able to understand these as they evolve.

9.1.2 Conversations for Sustainable Development in academic research

Through the meta-level of this thesis, I have engaged in a conversation with academia, and with myself, about AR as a means to contribute to SD. I have identified and contributed to a voice within the research community which unashamedly promotes a systemic view of life, and the need to advance this view if we are to progress ambitions of SD. AR is just one expression of this within the research community originating from the social sciences. The common ground within these voices appears to be a personal need to feel that contributions can really be made through academic research, to addressing real and urgent ecological and social challenges. The voice critiques the dominant view of academics as objective experts who can provide all the answers, and instead promotes a real belief in people's inherent creativity, and will to develop sustainable solutions, if they are only given the space and support to do so. This extends an interest in participation as instrumental in achieving pre-determined results, to a commitment to creating the spaces whereby people are able to contribute to the ongoing development of their own solutions through critical reflection on action as a way of being. The meta-cycle therefore comprises

having the conversation about what this vision of participation really means for academic researchers working from this perspective.

9.2 A pre-empting of questions arising

During the time I have conducted this research I have been asked a number of questions repeatedly which reflect an interest in, along with some caution about the 'Action Research' approach to contributing to knowledge. I include these in this section, along with corresponding responses.

Q1) Is a learning approach to change too naive and optimistic?

The notion of 'conversations to promote SD' has been a guiding metaphor to me throughout, encapsulating and aiding development of my own perspective on how to approach ambitions to change behaviour in a context. However I realised quite early on that the same metaphor did not sit well with all academics, and that such an approach based on dialogue and learning was perceived by some as optimistic and naive. A senior academic in my own department used the term 'Habermasian optimism' to express his own lack of faith in such an approach, which I came to realise was shared by many. Criticism of dialogue and learning as an approach to change, tends to focus on a perception that the existence of conflict, sometimes irresolvable, which is denied. Perhaps this critique is a result of concepts such as participation, stakeholder involvement and consultation being used very loosely within some approaches to SD. Involvement of others, and dialogue with them, does not guarantee the exposure and addressing of real differences in perspective and interests. There have to be processes to support the exposure and acknowledgement of these differences, and the commitment and infrastructure in place to find a transparent way of responding to them. I believe that Action Research within the Participatory Research Paradigm is an attempt to support both the exposure and acknowledgement, and the processes necessary to address them. These Action Research frameworks, far from taking a naive and optimistic approach to these differences, recognise that this is an extremely difficult task and include means to develop and get better at it, as part of any research task. The following quote summarises how Habermas' theory of Communicative space can be interpreted in this way within Action Research:

> Rather than being an expression of [Habermas' and Frieres'] presumed ignorance about the obstacles that get in the way of dialogue, this position reflects the most consistent attempt to place awareness of this problem at the heart of questions of ontology, epistemology, and social practice (Morrow and Torres 2002 in Wicks & Reason 2009 p. 246).

I have found through this research that the need to expose and articulate interests of different voices within the NHS SD agenda is vital if more marginalised interpretations are to be advanced. AR frameworks offer a means of bringing in these different voices at as many levels of the system of influence as possible, hence the multi-level framework proposed in this thesis. Navigating and supporting conversations across the levels is far too big a task to be undertaken by one Action Researcher, or even one Action Research project team. If such attempts are made, then the criticism of optimism and naivety is probably justified. If the Action Researcher sees their role as just part of a process of linking people together in a movement for change, as has been described by e.g. Gustavesen (2003), then there is more chance of supporting marginalised perspectives and bringing pressure on the interests which dominate to relinquish some of their power.

In short, my response to such criticism now would be to acknowledge its message of caution about the potential for any Action Researcher to be able to effect change in a system with dominant power interests woven through its institutions. However, the Action Researcher does have some theoretical guidance for acknowledging and developing responses to these interests. AR is currently satisfying my need to engage with the challenges of achieving social change, and not focusing solely on theorising about them, as more mainstream approaches tend to do.

Q2) Is Action Research focused on learning process at the expense of contextual theory?

A response to this question requires a reminder of the purpose of research as viewed from the perspective of the Participatory Research Paradigm (PRP). The PRP has been described as a critique of social science approaches informed by positivism which seek to obtain universal truths, as well as a critique of those approaches informed by postmodernism, which seek to expose all truths as relative. Informed by Pragmatic Philosophy and Critical Theory, the PRP advocates analogous theory building. This involves the critique of the, often unexposed, theories guiding behaviour in a context, and the development of alternatives more in line with an emerging vision of a desired state. The concept of a 'theory-of-action' (Argyris and Schon e.g.1978), is useful to describe what AR within the PRP is therefore interested in, as being the theories which have influence in real-life. There are theories-in-use (which actually guide behaviour) and there are espoused theories (about a desire state). In its most simplistic terms, AR helps people understand the differences between these two types, and engage with the interests and influences involved in the tensions, to progress the espoused versions.

This perspective therefore does require an Action Researcher to focus on the process by which analogous theory building can take place, but the content of the theories-in-use, and the espoused theories, is central to this. In a special issue on how theory-building takes place, Dick et al (2009) discuss the need for Action Researchers to get better at addressing this aspect, if the ambitions of AR as the linking of theory to action is to be achieved effectively. In short then, the criticism that contextual theory building receives too little attention within accounts of AR, has been acknowledged. I believe the framework I offer is actually a response to this need within AR for SD. By introducing the 'conversational map', I sought to raise the importance of context theory to the level afforded to process. It serves this purpose by helping the Action Researcher to identify relevant generalised theories of what SD could mean in this context (the emerging ecological paradigm), and relevant theories about the context as it is now (current state), and to use this understanding to inform decision-making. As well as this action-oriented purpose, the Action Researcher can contribute to the development of these generalised theories through the third person channels available to them. I have tried to do this in section 8.1 of this thesis, in which I discuss the contributions from this research to a generalised understanding of SD in the NHS. The purpose of doing this however, would not be to achieve generalised theories for their own sake, but generalised theories which could inform further analogous theory building in a context.

Q3) Is it possible to include such broad concepts as social paradigms and their trends over time as a research subject within a rigorous academic thesis?

It is true that I have framed this research as a contribution to the evolution of a social paradigm more conducive to the goals of SD, than that which dominates. Once this philosophical framing is selected it is impossible not to consider the content of these trends as research subjects in their own right, even if this is undoubtably difficult and complex. The frameworks offered by the PRP provide guidance on how to approach this, primarily through inclusion of a meta-level inquiry, for which generalised theories exist to guide practice. This generalised theory means the Action Researcher has conceptual frameworks for understanding the problems associated with a dominant social paradigm with respect to achieving desired states. I accept that discussing these concepts can sound trite and over-generalised e.g. the critique of the reductionist mindset of western industrialised society, but these claims do have substantive theory behind them, built on many years of debate on research paradigms in the social sciences. Using the terminology of epistemology, ontology and methodology, these debates are about generalising on how the World works and the role of academic research in contributing to knowledge about it.

Chapter 9: Conclusions

Sterling's model of paradigm change for SD helps move these debates on knowledge, out of the academic realm, and into the knowledge making processes occurring in and influencing real life decisions. The generalised descriptors he provides such as the contrasting ethos of a dominant paradigm based on 'objectivity' with an ecological paradigm based on 'participation', can also sound trite and over-generalised, but these too are built on a review of an immense amount of theory on trends in how society thinks and acts. It is not possible for me in a thesis concerned with application of these ideas, to recount the reviews on which they are founded in enough detail to give them justice, so instead I try to highlight the fact that these reviews exist. It is inevitable that once the discussion on the roots of our thinking is applied to an understanding of context, as I have done here, then detailed arguments behind them are, to some extent, lost.

However, if I don't engage with them at all, it is impossible to contribute to their development. Some advocate that the format of academic theorising required for a PhD thesis is not the most efficient way to contribute to this; other forms of expressions, more at home in the creative arts, could offer more appropriate routes for this. In short I recognise the pitfalls of making reference to generalised claims about how the World works, but in an academic thesis on how social change can take place, I believe it is necessary to try. By making the frameworks used in the PRP, as well as Sterling's model of paradigm change, transparent, assumptions at this level should be able to be debated and developed just as they are at the contextual level. I recognise that more innovative forms of doing so may also be required to assist this, and a role for these non theoretical forms of knowledge, as implied in Heron's extended epistemology, summarised in Figure 2.2, may need to be elevated to the same status as academic theorising.

Q4) Who is this framework of Action Research for Sustainable Development for? The academic or the practitioner?

The meta-level inquiry has been about the process of research for SD in organizations and the development of the idea that Action Researchers need to engage in practical knowledge generation with practitioners, rather than predominantly research about practitioners' quest for SD. The theoretical framework has therefore been developed from the researcher's perspective. However, the framework clearly has implications for practitioners, inviting them to participate actively as co-researchers in achieving the aims set out. Whilst it is undoubtably from a researcher's perspective, it implies that Action Research could form an important part of organizational strategy itself. In short, it paints a vision of researcher-participant collaborations for ongoing organizational learning.

Enactment of such a vision faces many challenges in practice to do with academics' dominant focus on theory, and practitioners' dominant focus on action, and these are not denied by the framework. In analogous theory building about how to achieve more sustainable organizations, it is an attempt to articulate a vision with which to critique and develop current approaches which are based on a researcher-practitioner divide.

9.3 Personal reflections to inform my own research practice

As described in Chapter 2 (2.2.6) validity in AR is tied up with choices made with respect to the integration of principles of research within the PRP, which have been broadly summarised by five characteristics shown in Figure 2.3 which are that the process must involve not only the researcher's understanding of a situation but, as far as possible, should aim to put participants' understandings at the centre of the process. It must forge as close a link as possible between the theory building process and the context with which these theories are concerned. It must be geared towards assisting people to flourish and be active participants within the health of their communities and ecosystems. It must engage with a variety of forms of knowledge in addition to propositional theory. Finally, it must be flexible, with the researcher accepting that these characteristics cannot be planned for at the outset, but are supported most successfully by research which emerges over time. Because these are aspirations not possible to achieve as a final state, validity does not come from external verification of their existence, but from the clarity of intention with which choices are communicated throughout the process. As an Action Researcher, we relate to the World on many levels and these have been summarised within AR as, at the level of the self (1st person), with co-researchers (2nd person), and with wider communities with shared interests (3rd person). I now reflect on what I have learnt about achieving clarity of intention at each of these levels.

9.3.1 Third person

The thesis document I present here, along with its dissemination through academic channels, is a form of communication with the academic community regarding the meta-level contributions about research process for SD, as well as context-level contributions about SD in the NHS. I have learnt that presenting these intentions through academic writing is a craft which I have improved but can only continue to improve. I recognise that there are some constraints put on the academic to present an argument in a recognisable, quite linear format: identifying a gap, developing a framework through which to respond to the gap, conducting research through the framework, and then making contributions. It has to be presented as if the story in fact unfolded in this linear fashion, when actually the inquiry undertaken was a lot more iterative than that in practice. Once the demands for

the PhD thesis itself have been satisfied, I can explore other, more flexible ways to engage with the academic community: viewing research inquiry as ongoing, seeking others to join in and help shape it, and building a supportive research community of fellow inquirers to enable more exploration to take place.

Notions of validity at the level of the third person also include those communities of people interested not only in academic understandings of process or content, but in the practical application of these ideas. In this case, this includes policy makers, strategists and practitioners involved in SD in organizations, specifically for the NHS. Whilst there were some opportunities for this within this research, I did not develop these significantly. I invited communication with the NHS Sustainable Development Unit and, as reported in Chapter 7, the Co-operative Inquiry group from NHS Nottingham endorsed a briefing paper summarising our findings, for them. We received no feedback from them about this, and to date I have not followed this up. At the beginning of the thesis process, I was also in contact with the national Project Lead for the area of NHS SD which I termed Environmental Resource Management (ERM). I have maintained some contact with her throughout, but I have not yet found a way to really engage with her or her Department about this inquiry. In both cases, I have felt the weight of their more pressing needs to be informed of strategy which will lead to outcome, than this inquiry was able to provide. I believe I could do more to communicate the intentions of this format of research to such people who have at least some influence within the system.

The regional approach I continue to explore in the East Midlands has so far been where my efforts at building third person communities of practice, linked to influential actors has been. This has shown me the length of time necessary to build such learning communities, and the importance of trust and relationship-building required to support them. I continue along these lines as I discuss the reflections on the 2nd person process below.

9.3.2 Second person

I provide an account of what actually happened in the Co-operative Inquiry group at NHS Nottingham City in Chapter 7, where I document my reflections on the extent to which I had achieved clarity of intention with co-researchers in relation to what actually happened. I outlined three key issues where the clarity of my intentions had influence. These were the failure of the group to address defensive patterns of behaviour as they arose, the lack of engagement by the group with the principles of Co-operative Inquiry, and the attempts made to link the groups to wider social learning networks. I explained why I did not challenge the defensive patterns as directly as the theory on AR would imply

is required, realising that it was not my place to be too disruptive as an outsider who would have to leave these organizational members to get on with their business after I left. I explained why, although there was little evidence of double-loop learning within the group, I pushed the group as far as I could in expecting them to develop alternative SD strategy to that which was currently acceptable. Part-way through the process, I decided that it was not effective to keep asking people to do things, or at least think about things, in ways that they were not currently permitted to do within the hierarchical constraints of the organization. If constraints had their origins outside, then I could only ask them to try to overcome them if I offered levers from this external system. On realising this, I began to discuss with the SD Lead, Helen, how we could begin to foster such levers, and we continue to try to do this today.

On reflection then, there are ways I could have communicated better the intentions of the Co-operative Inquiry process from the outset and explained the learning intentions as boldly as I had explained the intentions to help them address SD. In retrospect, I understand my own intentions in this regard much more clearly than I did when I was acting out the process. I am also quite sure that boldly offering them a learning process from the outset may also have put them off, so I can now see that what is important in such relations is to communicate honestly, but also to be receptive to their concerns and accommodate them. It is likely that many of the group members would have felt that engaging in a learning process for learning's sake, was not going to fulfil their pressing needs. It would therefore be up to me to communicate what it could offer them in this regard. I think I would have had more to offer if there were already communities of practice identified, with open doors, and with links to actors of influence, which I could offer them from the outset. If there was already a commitment received from actors such as the SDU, or even more local actor groups with some influence over the NHS, to want to work with a Co-operative Inquiry group or groups from individual organizations, to develop real changes in policy and strategy, such groups would be more likely to respond positively. If I could communicate this will from such influential actors, then groups like this Co-operative Inquiry group could begin to see themselves as cutting-edge innovators, rather than radical idealists. In short, they may feel they have permission to commit to higher levels of learning than we were able to achieve. The practice of Action Research therefore involves a commitment to developing such social learning networks, so that when they engage in 2nd person research, particularly at the proposal stage, they can offer this leverage as well.

We are developing these ideas in the East Midlands now and strengthening networks of local practitioners by linking them up with actors of influence, and hopefully more academics able to develop good theory in each of the domains of paradigm tension, as well as in the process. There is some reason for optimism. We have so far found that people from unlikely quarters wish to join and contribute if they are given a forum like this in which to do so. Notably, I have revised my notion that the whole medical profession would be difficult to engage, being trained in alternatives to the social-ecological models of health. This has proven to be just the generalisation it sounds. GPs and those involved in community care may have much broader interpretations of health than consultants specialising on individual diseases, and obviously within these categories there are countless individual interpretations. Through this process, I have learnt to be more open about who would be keen to join such networks and their reasons for involvement.

9.3.3 First person

I think I instinctively knew at the outset of this research that my role as a researcher was not to generate knowledge that could on its own inform and change practice in the NHS. What this research process has enabled me to do is to articulate that instinct to myself and develop a response, namely a proposed role for myself as an Action Researcher who works with others from all parts of the learning system as co-researchers. In articulating this, I have also learnt not to be over-zealous about the AR as the only appropriate form of social research. Generalized theories in their own right are important too, and can sometimes be advanced through less participative, action-oriented research. Phase 1 of this study was not on its own Action Research, but I think it provided important theoretical development of the context. There is however, an important role for academic endeavours as sites of analogous theory building, where Action Researchers work to integrate generalised theories with real attempts to make change. Arguably the more there are of these sites, where requirements for generalised theories are developed, the more directed and purposive less participative research projects can be, and the less likely it would be for generalised theories to sit on the shelves in academic journal articles. I have learnt the importance of joining with a network of Action Researchers, linked to practitioners, to develop this role further, and that it is not something to be approached as a lone researcher. From within a supportive network which has gained legitimacy from its involvement of practitioners and actors of influence, it will be easier to take issues of communication to the level espoused by the theoretical framework I offer in this thesis. From this safer ground, I can try to enact Torbert's four parts of speech (Torbert and Taylor 2008) which comprise 'framing' (explicitly stating a purpose), 'advocating'

(asserting an opinion), ‘ illustrating’ (making opinion concrete), and ‘inquiring’ (questioning others). Gaining this level of clarity in relations at every level will remain a lifetime’s endeavour, only improved through practice.

9.4 A concluding poem

‘Turning to one another’ by Margaret Wheatley

Ask: “What’s possible?” not “What’s wrong?” Keep asking.
Notice what you care about. Assume that many others share your dreams.
Be brave enough to start a conversation that matters. Talk to people you know. Talk to people you don’t know. Talk to people you never talk to.
Be intrigued by the differences you hear. Expect to be surprised. Treasure curiosity more than certainty.
Invite in everybody who cares to work on what’s possible. Acknowledge that everyone is an expert about something. Know that creative solutions come from new connections.
Remember, you don’t fear people whose story you know. Real listening always brings people closer together.
Trust that meaningful conversations can change your world.
Rely on human goodness. Stay together.

Word Count (excluding references) 96 603

Epilogue - Action Research for Sustainable Development as personal niche?

The level of personal growth I have undergone whilst carrying out this PhD has left me more convinced that Action Research has become a way for me to try to develop my niche within the ecological scheme of things: a concept which I introduced in the preamble. It has been a spiritual experience which has extended out from the research project itself to many other parts of life. For many people, myself included, there has to be an outlet to respond to the increasing sense of implication in the ecological and social messes we all continue to create. Frameworks of Action Research help to conceptualise a role within this: as a facilitator of conversations about how to promote alternative ways of living to those which we know contribute to these problems. The conversations are as much about me as they are about others who I invite to participate. Importantly, frameworks of Action Research have allowed me to leap in and try to change how things are. There really is no way of changing things without making this leap, and I know we are often scared to do so.

The approaches advocated are about a philosophy on life: about seeking clarity of vision, increased awareness of any contrast between this vision and what currently exists, along with an awareness of how best to address such a gap, about listening to others and seeking connections with them, of looking and watching what is around you. They are not about achieving a Utopia, but about taking responsibility for acting to the best of our capabilities in whatever situation we are in. Such a philosophy has its roots in many traditions which have existed for longer than the Participatory Research Paradigm. I now find them in discussions of what religion can offer, in meditative traditions such as yoga: all offering ways of developing what Buddhists call mindfulness. I will continue to explore whether Action Research provides me with one way to develop this niche further. If it cannot, the beauty of it will have been that it has allowed me to see that it will not matter if the frameworks of AR themselves are not practical for me in the long-term, and that I will feel confident to navigate my way purposively through whatever context I am in, using whatever means may be more appropriate. I hope this is not the case, at least not yet, whilst I continue to develop the practice of AR within the context of academia in which I find myself.

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11 Appendices

11.1 Appendix 1: Contrasting paradigms for Sustainable Development

11.1.1 A summary by Sterling (2003 p.201-202)

Dominant modes of thought	Ecological modes of thought
Problem-solving	Appreciation / problematising / situation improvement
Analysis	Synthesis
Reductionism	Holism
Closed cause-effect	Multiple influences through time and space
Atomism / segregation	Integrative
Narrow boundaries	Extension of boundaries
Objectivism	Critical Subjectivity
Dualism	Monism / pluralism / duality
Rationalism	Rational / non-rational ways of knowing

11.2 Appendix 2 Recruitment documents (as per Ethics Approval)

11.2.1 Appendix 2a Recruitment Covering Letter

Dear

Research study: The corporate role of the NHS in Sustainable Development

You have been identified as a contact point for an initiative which addresses the corporate role of the NHS in Sustainable Development and/or Environmental Management. Your details were obtained from the Sustainable Development Commission website (document name).

Diverting NHS corporate resources to 'sustainability' objectives is clearly a challenge, and I am conducting a piece of research which aims to investigate how innovative projects such as yours, address issues to do with evidence, prioritisation and organizational constraints. By drawing together the experiences of a number of initiatives, I hope to form some conclusions useful both to NHS practitioners such as yourself, and to policy makers.

In order to conduct this research, I would like to conduct telephone interviews (maximum 45 minutes), over the coming months with staff involved in the coordination of initiatives like yours. Should you be willing to participate, please contact me as detailed above. I will then send you some further information, and a short questionnaire requesting an overview of the details of the initiative(s) you are involved in, before arranging a suitable time for interview.

Please pass this onto a colleague if you think it would be a more appropriate for them to participate.

Thank you in advance

Claire Marsh

11.2.2 Appendix 2b Participant Information Sheet

Participant Information Sheet (Univ. of Leeds Headed Paper - contacts).

Study Title: NHS Corporate Sustainability – Why? What? How?

Invitation to participate: You are invited to take part in Phase 1 of a research study. Please read the following information and should you wish to take part, sign and return the consent form to the address above.

Purpose of Study: To contribute to the understanding of the corporate role of NHS organizations in sustainable development.

Why have you been chosen: You have been identified as someone connected to a best practice corporate sustainability initiative. You or your colleagues are therefore likely to have valuable information on the practicalities of addressing corporate sustainability in the NHS. You are also likely to have spent time considering why such initiatives are important and what they should involve. These insights could contribute to wider debate around this topic.

2 Phases of Research: You are initially asked to take part in Phase 1 (questionnaire, telephone interview). Confirmation of those organizations to be involved in Phase 2 will be agreed with participants after Phase 1, when a second consent form will be issued to relevant parties.

Confidentiality and data protection: Whilst your personal details will not be disclosed to any other parties without permission, the initiatives you are involved in will be described in detail in subsequent research reports. Due to the relatively small sample, it is likely that personal identification may then be possible. Therefore, by taking part in this study, you would be making project details publicly available.

Potentially sensitive information will not be included in research reports. This is thought to include detailed project finances and names of employees or others involved. Should other potentially sensitive issues arise, participants should make this clear to the researcher and a suitable approach to presentation of results will then be agreed.

Data transcripts and audio recordings will be held in accordance with Leeds University data protection policy.

Research results: A report will be made available after Phase 1. Final results will appear in a PhD thesis. The production of other publications will be negotiated as required.

Nature of research project: This research is part of a PhD thesis.

Research funding: This research is financially supported by the University of Leeds.

Ethics review: This research has been reviewed by the NHS Research Ethics Committee.

11.2.3 Appendix 2c Participant Consent Form

Case Study Number: ……(leave blank)

CONSENT FORM

Title of Project: NHS Contributions to Sustainable Development: Why? What? How?

Name of Researcher: Claire Marsh

Please initial box

1. I confirm that I have read and understand the information sheet dated ..... ☐

2. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

3. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason. ☐

4. I agree that results from this study may appear in written reports and understand that the detailed descriptions included may make it possible to identify participants. ☐

5. I agree to take part in the above study. ☐

Name of Participant Date Signature

.

Researcher Date Signature

11.2.4 Appendix 2d Participant Questionnaire

PROJECT & PARTICIPANT DETAILS

1) RESPONDENT DETAILS	
Name of respondent:	
Organization:	
Job title & brief overview of all key responsibilities:	
Telephone:	Email:
Address:	

2) SUSTAINABLE DEVELOPMENT INITIATIVE DETAILS	
Initiative Name (if there is one):	
Which of the following NHS activities are addressed in this initiative? *Please tick 1 or more that you consider significant in this initiative:*	
Transport	*Environmental Management Systems*
Waste Management	*Employment and Human Resources*
Energy Consumption	*Building design and construction*
Water Consumption	*Other:*
Procurement (general)	
Procurement (food)	
Brief description of initiative:	
When did the initiative start?	
When is the initiative due to end? *(if ongoing, please write 'ongoing')*	

3) OTHER ORGANIZATIONS	
Which other organizations (if any) are involved in the initiative and what is their role (in brief)? *Please complete the following table.*	
Organization:	*Role in Initiative:*

4) PERSONNEL
Briefly describe your role in the initiative:
Who else is significantly involved in implementing this initiative and what role do they play? If they are from another organization, please indicate which one.

5) PUBLICATIONS
Please indicate the names of any available publications which illustrate the aims and content of this initiative. If the publication is available online, please indicate the website.

Please use the envelope provided to return this form, along with the consent form before the agreed interview date. Thanks for your time.

11.3 Appendix 3 Interview Guides

11.3.1 Appendix 3a Interview Guide – Type 1

Revised Interview Guides – December 2006

Type 1 –

Interviews with staff from NHS organizations involved in one or more SD initiatives.

Format for the interviews

1) Introduction to myself & the research – any questions from the information sent, check consent form & recording

2) 4 categories of questions:
   a) **What** the project is trying to do & how it fits with any other SD targets of the organization

   b) **How** the project & the wider SD targets (if applicable) run in practice

   c) Taking a step back, **why** any of this is important in the NHS

   d) Summary: reflection on **progress to date** and **future direction**

3) Round-up: thanks, timescales for research findings, any other contacts? any questions?

11.3.2 Appendix 3b Interview Guide – Type 2

Revised Interview Guides – December 2006

Type 2 –

Interviews with those who work in SD initiatives with the NHS but are not employed by the NHS.

Format for the interviews

1) Introduction to myself & the research – any questions from the information sent, check consent form & recording

2) 4 categories of questions:
   a) **What** the project is trying to do & how it fits with any other SD targets of the organization

   b) **How** the project & the wider SD targets (if applicable) run in practice

   c) Taking a step back, **why** any of this is important in the NHS

   d) Summary: reflection on **progress to date** and **future direction**

3) Round-up: thanks, timescales for research findings, any other contacts? any questions?

11.3.3 Appendix 2c Interview Guide – Type 3

Revised Interview Guides – December 2006

Type 3 –

Interviews with those involved in SD policy & guidance to the NHS

Format for the interviews

1) Introduction to myself & the research – any questions from the information sent, check consent form & recording

2) 4 categories of questions:
   a) **Why** this agenda is important in the NHS

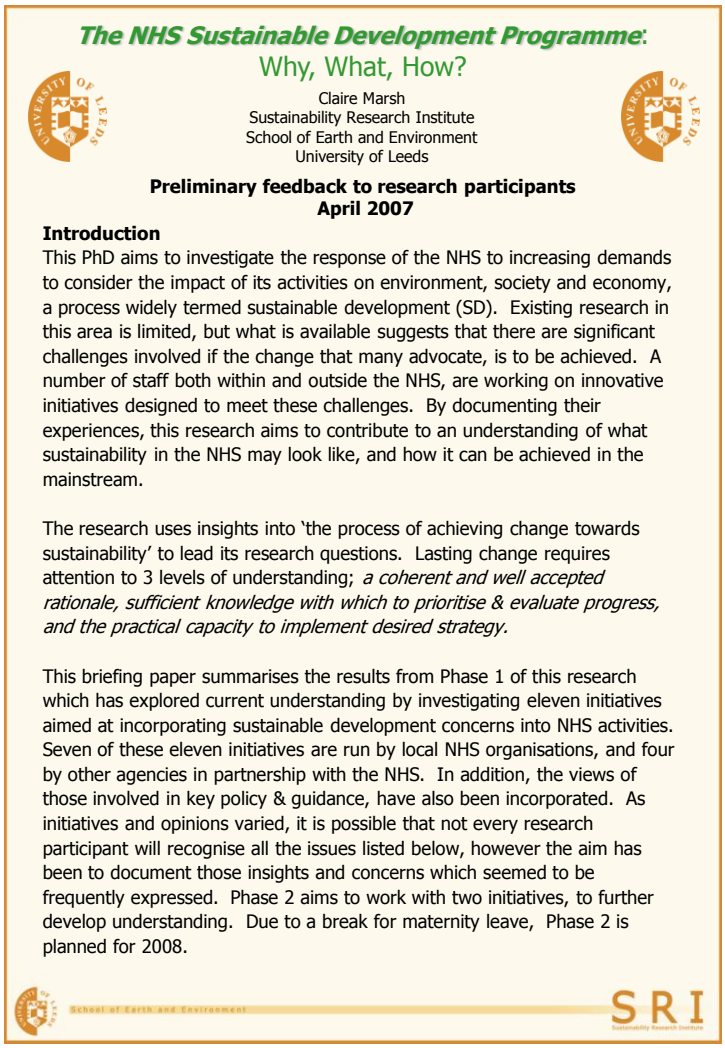
   b) **What** you intend the response of NHS organizations to be to this policy &/or guidance

   c) **How** NHS organizations should go about everyday implementation of this agenda.

   d) Summary: reflection on **progress to date** and **future direction**

3) Round-up: thanks, timescales for research findings, any other contacts? any questions?

11.4 Appendix 4 Feedback to Phase 1 Participants



The NHS Sustainable Development Programme:
Why, What, How?

Claire Marsh
Sustainability Research Institute
School of Earth and Environment
University of Leeds

Preliminary feedback to research participants
April 2007

Introduction

This PhD aims to investigate the response of the NHS to increasing demands to consider the impact of its activities on environment, society and economy, a process widely termed sustainable development (SD). Existing research in this area is limited, but what is available suggests that there are significant challenges involved if the change that many advocate, is to be achieved. A number of staff both within and outside the NHS, are working on innovative initiatives designed to meet these challenges. By documenting their experiences, this research aims to contribute to an understanding of what sustainability in the NHS may look like, and how it can be achieved in the mainstream.

The research uses insights into 'the process of achieving change towards sustainability' to lead its research questions. Lasting change requires attention to 3 levels of understanding; *a coherent and well accepted rationale, sufficient knowledge with which to prioritise & evaluate progress, and the practical capacity to implement desired strategy.*

This briefing paper summarises the results from Phase 1 of this research which has explored current understanding by investigating eleven initiatives aimed at incorporating sustainable development concerns into NHS activities. Seven of these eleven initiatives are run by local NHS organisations, and four by other agencies in partnership with the NHS. In addition, the views of those involved in key policy & guidance, have also been incorporated. As initiatives and opinions varied, it is possible that not every research participant will recognise all the issues listed below, however the aim has been to document those insights and concerns which seemed to be frequently expressed. Phase 2 aims to work with two initiatives, to further develop understanding. Due to a break for maternity leave, Phase 2 is planned for 2008.

11.5 Appendix 5 Briefing Paper for Sustainable Development Unit

'Action Research NHS': learning networks for Sustainable Development

Discussion Document

Author: Claire Marsh, University of Leeds in collaboration with NHS Nottingham City

Introduction: the NHS Sustainable Development (SD) agenda offers much in terms of resource-efficiency and scale of influence but it also challenges existing organizational goals, structures and ways of working and can therefore suffer from inertia. An Action Research (AR) approach to organizational change can help to overcome this. In short, AR consists of planned cycles of action and critical reflection designed to help those tasked with the development of this new agenda, to understand barriers and opportunities, and envision new directions. There are 5 key underlying principles (from Reason & Bradbury, 2008):

- ***Participation***: organizational members are involved in the development of their own solutions. This is not solely the remit of external researchers or consultants.
- ***Human Flourishing***: AR demands a strong commitment not to lose sight of the purpose of every strategy objective as ultimately contributing to improved societal well-being.
- ***Practical Issues***: AR should focus on issues of concern to people now, in their ambition to progress SD strategy. It should not involve abstract theory alone.
- ***Knowledge-in-action***: AR values the knowledge gained in situ and warns against an over-reliance on theoretical best practice and 'how-to' guides.
- ***Emergent***: AR at its best becomes a way of doing things in organizations, and is of limited use in 1-off short research projects.

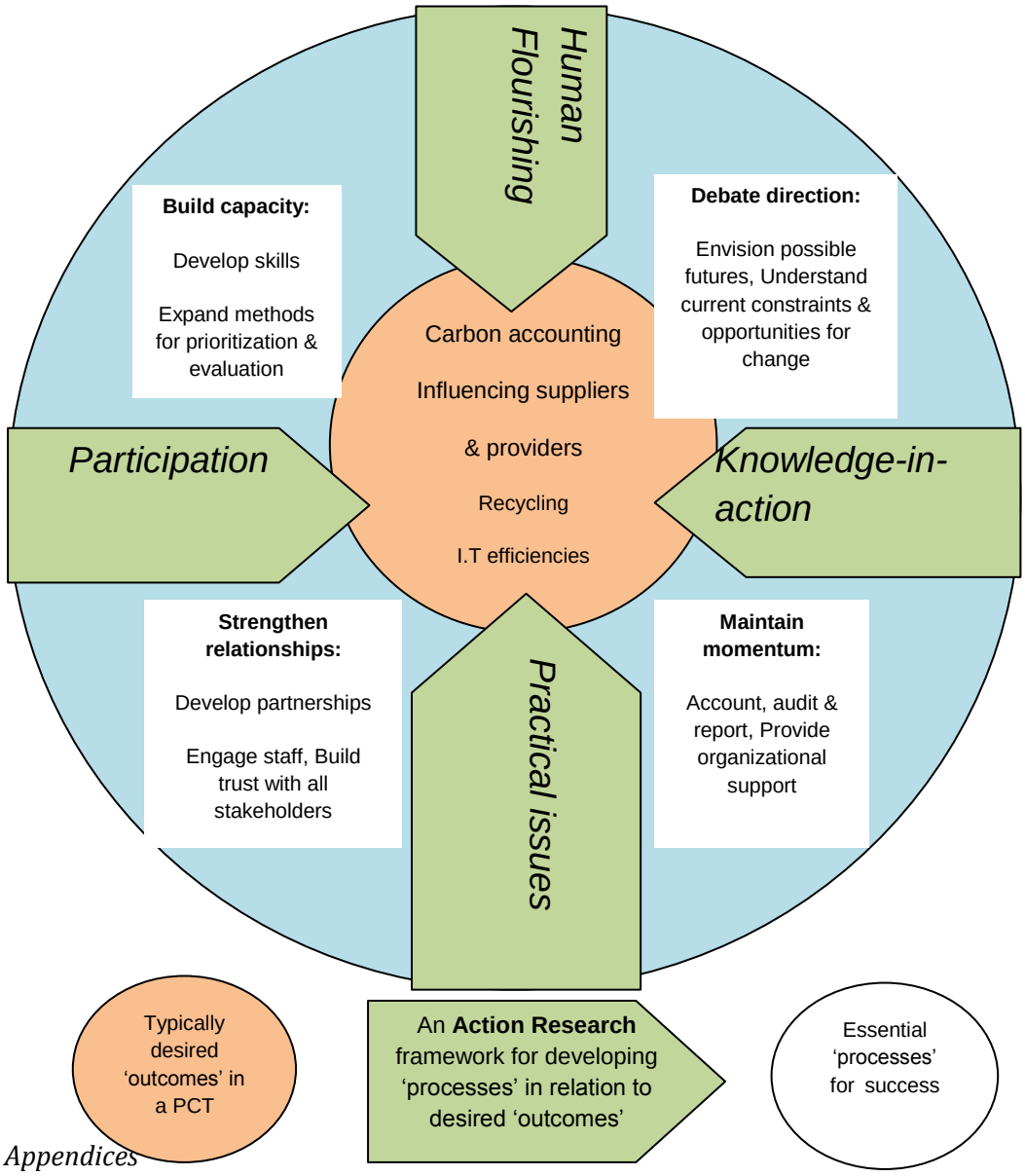
Action Research in practice: the experience of NHS Nottingham City

NHS Nottingham City is currently working to progress a number of SD 'outcomes', including carbon accounting, influencing suppliers & commissioners, recycling. An AR project has revealed that success of these 'outcomes' is dependent on a number of 'process' factors including the development of skills and expertise, the establishment of partnerships, and staff engagement. Over 1 year, key personnel from the Trust have met regularly to reflect on their efforts to strengthen these processes. Good progress has been made, specifically around staff engagement (a sustainability award, regular news updates), organizational support (the formation of a non-exec chaired committee), and innovative partnerships (a carbon reduction project with Nottingham Energy Partnership).

Such efforts require a significant commitment from those involved. These staff members have dedicated not only their time but a willingness to think beyond their individual job descriptions to consider a vision for a sustainable Trust, and how such a vision can be embedded across the organization. Such a commitment is not easy in an NHS where other issues such as swine flu and short-term financial savings demand urgent attention. However, without continued attention towards the requirements to develop adequate organizational 'processes' to support 'desired outcomes', an SD agenda will remain marginalized and piecemeal.

Figure 1 summarizes the role of AR in the development of 'processes' necessary to achieve desired 'outcomes'.

Figure 1: An Action Research Approach to Developing 'Essential Processes' for NHS Sustainable Development

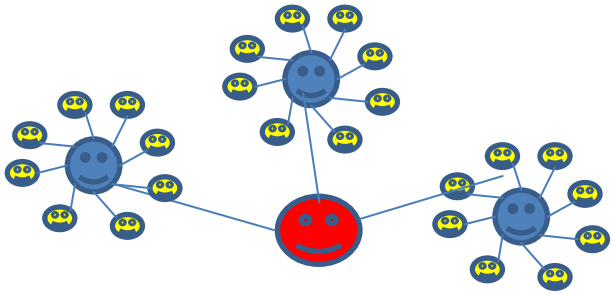


Developing local, regional and national learning networks

The regional networks for SD could potentially support individual Trusts in ongoing AR in a variety of formats:

- Topic-based AR groups consisting of 6-8 individuals from the region, who come together to develop responses to specific aspects of the NHS Carbon Reduction Strategy (e.g. carbon accounting frameworks, procurement guidelines).
- Larger-scale participatory events organized periodically to share and reflect on experiences common to broader groups e.g. in a specific Trust, whole regions, across regions or nationally.
- Individual development through access to training resources.

Figure 2: Proposed Format for Regional Network Activity



NHS Regional leads – support development of local networks of activity.

Local 'topic' leads – Staff from local NHS organizations, who volunteer to coordinate a working group around a topic of concern (e.g. carbon accounting, guidance for commissioners, sustainable building).

Local pioneers – Those staff members from approximately 6-8 organizations, who agree to join one of the working groups and contribute to the development of innovative ways to address a topic of concern.

Fostering a national learning community

An AR framework invites actors at each level of NHS influence (individual Trusts, regional networks, and national organizations such as the SDU and the DH) to view their strategies for SD as work-in-progress, which are subjected to regular critical reflection. This requires the practical structures which support 2-way communication between actors at each level as well as a strong commitment to reflective practice by all.

11.6 Appendix 6 Visit Summary Sheets – Phase 2

Visit Summary Sheet

Date

Purpose of visit

Brief description – the aim of this meeting was …..

Invitees:

Outline of visit:

1.00 – 2.00:

2.00 – 3.30:

3.30 – 4.15:

4.15: leave

Immediate reflections

11.7 Appendix 7 Co-operative Inquiry

11.7.1 Appendix 7a Comments from group member

Dear Claire

Re: Comments of Claire Marsh's PhD extract

The extract was extremely helpful in providing a summary of the Action Research work that we have been engaged with at NHS Nottingham City. The following points provide a brief response to the information provided in the extract; -

1. It would be interesting to read the whole document to make it easier to understand some of the terms in the extract and because I like to see the whole picture.

2. The Action Research was helpful to me in understanding my responsibilities: -

> a. before the group work, I believed that any successes or otherwise, were down to what I did or did not do. I now realise that it is not enough to have just one person enthusiastic for this, however effective that person is. One person is contributing to the whole and in order to achieve anything, other people in the organization have to understand the agenda and do their bit. This requires their will and the culture of the organization to facilitate their behaviour change.
>
> b. I now recognise the structural factors the reality of timeliness – i.e. that organizations have to be willing and able to change, along with the urgency of the agenda – if the organization is not ready to change then this creates friction for and in the sustainability lead person.

3. Challenged the labels of 'realist' and 'idealist' as idealist has connotations of not being taken seriously. In addition, the reality is that climate change is happening due to human behaviour and therefore the real situation is that we have to change.

4. I would say this work has been extremely valuable, in supporting the PCT in delivering on SD, and in helping to identify gaps in what it was able to deliver on. This should not be underestimated. It also helped to develop strong relationships between group members – crucial to delivery of both PCT and regional work.

Yours sincerely

Helen Ross

11.7.2 Appendix 7b Interview Guides for Co-operative Inquiry

Checklists for Diagnostic Interviews & Shadowing

1) Core group:
    - Discuss role with respect to SD (vision, problems, potential solutions)
    - Discuss role of group/expectations
2) Project Consultants
    - Roles/interests in SD in Nottingham
    - Vision
    - Potential problems
    - Steps/help required to make it a success
3) Champions
    - Vision for Nottingham SD and how related to role
    - Problems anticipated/already experienced
    - Steps/Help required
4) All staff
    - Vision for Nottingham SD and how related to role
    - Problems anticipated/already experienced
    - Steps/ Help required